

**FACULTY OF LIFE SCIENCES  
MAHARSHI DAYANAND UNIVERSITY, ROHTAK**

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E- tenders on behalf of Registrar is invited subscribed as “Tender for Equipment” (as per list) for the supply of Instruments as per detail given on website along with earnest money equal to 2% of the quoted rates on the total amount paid through online mode and a separate fee of Rs. 3000/- as tender fee in account of Finance Officer, M.D. University, Rohtak will also be deposited through online mode. The e- tenders will be opened on 1/03/2017 at 10.00 a.m. For details may visit on <https://haryanaeprocurement.gov.in> / [www.mdurohtak.ac.in](http://www.mdurohtak.ac.in)

REGISTRAR

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK  
FACULTY OF LIFE SCIENCES,**

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STANDARD BIDDING DOCUMENT FOR PURCHASE OF EQUIPMENTS FOR FACULTY OF LIFE SCIENCES ON BEHALF OF REGISTRAR, M.D. UNIVERSITY, ROHTAK

PART1: COMPLETE BIDDING DOCUMENT

**Name of Work: Purchase of equipment for the Faculty of Life Sciences, MDU, Rohtak**

**PRESS NOTICE**

<b>M.D. UNIVERSITY, ROHTAK Notice Inviting E-tender</b>	
<b>Name of Work</b>	<b><u>Purchase of equipment for the Faculty of Life Sciences, MDU, Rohtak</u></b>
<b>Tender Docs Fee+ E Service Fees</b>	<b>Rs. 3000 + Rs. 1000 = Rs. 4000/-</b>
<b>Earnest Money</b>	<b>2% of the quoted rate of the Equipment.</b>
<b>Tenders to be received till: 5.00 p.m on dated 28.02.2017</b>	
<p><b>i) The tenders will be received only through E-tendering for further details visit website <a href="https://harvanaeprocurement.gov.in">https://harvanaeprocurement.gov.in</a></b></p> <p><b>(ii) Cost of Bid document is Rs. 500/- (non refundable) for each bid to be deposited through online/netbanking. EMD fee (2% of the quoted rate of the Equipment) also to be deposited through online/netbanking/RTGS.</b></p> <p><b>(iii) Willing Contractors shall have to pay is Rs. 1000/- the e- Service Fees should be deposited through Online/Net-Banking.</b></p>	

**Dean, Faculty of Life Sciences  
MDU, Rohtak**

## **DETAIL NOTICE INVITING TENDER**

**e-Tender** is invited for purchase of below mentioned items in single stage two cover system i.e. Request for Pre-Qualification/Technical Bid (online Bid under PQQ/ Technical Envelope) and Request for Financial Bid (comprising of price bid Proposal under online available Commercial Envelope):-

Sr. No	Name of Item	Appx. Cost (Rs. In lacs)	EMD to be deposited by Bidder	Tender Document Fee & eService Fee (Rs.)	Start Date & Time of Bid Preparation & Submission	Expiry Date & Time of Bid Preparation & Submission
1.	<b><u>Purchase of equipment for the Faculty of Life Sciences, MDU, Rohtak</u></b>	90 lacs	2% of the price quatted by the bidder	Rs. 3000/-for Tender Document fee & Rs. 1000/- for e-Service fee	15.02.2017	Upto 28.02.2017 (05:00 P.M.)

1. Detailed notice inviting tender/estimate drawing can be seen in the office of the undersigned during office hours.
2. Bidding documents available on website <http://mdurohtak.haryanaeprocurement.gov.in>
3. Newly enlisted contractors/societies/suppliers/manufactures should bring with them proof of their enlistment in appropriate class.
4. The bidders would submit bid through e-tendering only on the website i.e. <http://haryanaeprocurement.gov.in>

Under this process, the Pre-qualification/ Technical online bid Application as well as online Price Bid shall be invited at single stage under two covers i.e. PQQ/Technical & Commercial Envelope. Eligibility and qualification of the Applicant will be first examined based on the details submitted online under first cover (PQQ or Technical) with respect to eligibility and qualification criteria prescribed in this Tender document. The Price Bid under the second cover shall be opened for only those Applicants whose PQQ/ Technical Applications are responsive to eligibility and qualifications requirements as per Tender document.

1. **The payment for Tender Document Fee and e-Service Fee shall be made by eligible bidders online directly through Debit Cards & Internet Banking Accounts and the payment for EMD can be made online directly through RTGS/NEFT or OTC Please refer to 'Online Payment Guideline' available at the Single e-Procurement portal of GoH (Govt. of Haryana) and also mentioned under the Tender Document.**

2. Intending bidders will be mandatorily required to online sign-up (create user account) on the website <https://haryanaeprocurement.gov.in> to be eligible to participate in the e-Tender. **He/She will be required to make online payment of EMD fee in due course of time. The intended bidder fails to pay EMD fee under the stipulated time frame shall not be allow to submit his / her bids for the respective event / Tenders.**

3. The interested bidders must remit the funds at least T+1 working day (Transaction day + One working Day) in advance i.e. **on or before (as mentioned above.); and make payment via RTGS /NEFT or OTC to the beneficiary account number specified under the online generated challan. The intended bidder / Agency thereafter will be able to successfully verify their payment online, and submit their bids on or before the expiry date & time of the respective events/Tenders at <https://haryanaeprocurement.gov.in>.**

The interested bidders shall have to pay mandatorily e-Service fee (under document fee – Non refundable) of Rs.1000/- (Rupee One Thousand Only) online by using the service of secure electronic gateway. The secure electronic payments gateway is an online interface between bidders & online payment authorization networks.

The Payment for document fee/ e-Service fee can be made by eligible bidders online directly through Debit Cards & Internet Banking.

The Bidders can submit their tender documents (Online) as per the dates mentioned in the key dates:-

### **Key Dates**

<b>Sr. No.</b>	<b>Department Stage</b>	<b>Bidder's Stage</b>	<b>Start date and time</b>	<b>Expiry date and time</b>
1		<b>Tender Document Download and Bid Preparation/Submission</b>	15.02.2017	28.02.2017 (05:00 P.M.)
2	<b>Technical Bid Opening</b>		01.03.2017 (10:00 A.M) to (05:00 P.M)	
3	<b>Financial Bid Opening</b>		03.03.2017 (10:00 A.M) to (05:00 P.M)	

**Important Note:**

- 1) The Applicants/bidders have to complete 'Application / Bid Preparation & Submission' stage on scheduled time as mentioned above. If any Applicant / bidder failed to complete his / her aforesaid stage in the stipulated online time schedule for this stage, his / her Application/bid status will be considered as 'Applications / bids not submitted'.
- 2) Applicant/Bidder must confirm & check his/her Application/bid status after completion of his/her all activities for e-bidding.
- 3) Applicant/Bidder can rework on his/her bids even after completion of 'Application/Bid Preparation & submission stage' (Application/Bidder Stage), subject to the condition that the rework must take place during the stipulated time frame of the Applicant/Bidder Stage.
- 4) In the first instance, the online payment details of tender document fee + e-Service and EMD & PQQ/Technical Envelope shall be opened. Henceforth financial bid quoted against each of the item by the shortlisted bidder/ Agency wherever required shall be opened online in the presence of such bidders/ Agency who either themselves or through their representatives choose to be present. The bidder can submit online their bids as per the dates mentioned in the schedule/Key Dates above.

The bids shall be submitted online in two separate envelopes:

**Envelope 1: Technical Bid**

The bidders shall upload the required eligibility & technical documents online in the Technical Bid.

**Envelope 2: Commercial Bid**

The bidders shall quote the prices in price bid format under Commercial Bid.

**CONDITIONS: -**

1. DNIT & prequalification criteria can be seen on any working day during office hours in office of the undersigned.

2. Conditional tenders will not be entertained & are liable to be rejected.
3. In case the day of opening of tenders happens to be holiday, the tenders will be opened on the next working day. The time and place of receipt of tenders and other conditions will remain unchanged.
4. The undersigned reserve the right to reject any tender or all the tenders without assigning any reasons.
5. The societies shall produce an attested copy of the resolution of the Co-operative department for the issuance of tenders.
6. The tender without earnest money/bid security will not be opened.
7. The Jurisdiction of court will be at **Rohtak**.
8. The tender of the bidder who does not satisfy the qualification criteria in the bid documents are liable to be rejected summarily without assigning any reason and no claim whatsoever on this account will be considered.
9. The bid for the work shall remain open for acceptance during the bid validity period to be reckoned from the last date of 'Manual submission of BS. If any bidder/tenders withdraws his bid/tender before the said period or makes any modifications in the terms and conditions of the bid, the earnest money shall stand forfeited. Bids shall be valid for 120 days from the date of bid closing i.e. from last date of manual submission of EMD. In case the last day to accept the tender happens to be holiday, validity to accept tender will be the next working day.

For/ on the behalf of Registrar MDU Rohtak

**Dean, Faculty of Life Sciences  
M. D. University, Rohtak**

## **Instructions to bidder on Electronic Tendering System**

**These conditions will over-rule the conditions stated in the tender documents, wherever relevant and applicable.**

### **1. Registration of bidders on e-Procurement Portal:-**

All the bidders intending to participate in the tenders process online are required to get registered on the centralized e - Procurement Portal i.e. <https://haryanaeprocurement.gov.in>. Please visit the website for more details.

### **2. Obtaining a Digital Certificate:**

**2.1** The Bids submitted online should be encrypted and signed electronically with a Digital Certificate to establish the identity of the bidder bidding online. These Digital Certificates are issued by an Approved Certifying Authority, by the Controller of Certifying Authorities, Government of India.

**2.2** A Digital Certificate is issued upon receipt of mandatory identity (i.e. Applicant's PAN Card) and Address proofs and verification form duly attested by the Bank Manager / Post Master / Gazetted Officer. Only upon the receipt of the required documents, a digital certificate can be issued. For more details please visit the website – <https://haryanaeprocurement.gov.in>.

**2.3** The bidders may obtain Class-II or III digital signature certificate from any Certifying Authority or Sub-certifying Authority authorized by the Controller of Certifying Authorities or may obtain information and application format and documents required for the issue of digital certificate from.

**2.4** The bidder must ensure that he/she comply by the online available important guidelines at the portal <https://haryanaeprocurement.gov.in> for Digital Signature Certificate (DSC) including the e-Token carrying DSCs.

**2.5** Bid for a particular tender must be submitted online using the digital certificate (Encryption & Signing), which is used to encrypt and sign the data during the stage of bid preparation. In case, during the process of a particular tender, the user loses his digital certificate (due to virus attack, hardware problem, operating system or any other problem) he will not be able to submit the bid online. Hence, the users are advised **to keep a backup of the certificate** and also keep the copies at safe place under proper security (for its use in case of emergencies).

**2.6** In case of online tendering, if the digital certificate issued to the authorized user of a firm is used for signing and submitting a bid, it will be considered equivalent to a no-objection certificate /power of attorney / lawful authorization to that User. The firm has to authorize a specific individual through an authorization certificate signed by all partners to use the digital certificate as per Indian Information Technology Act 2000. Unless the certificates are revoked, it will be assumed to represent adequate authority of the user to bid on behalf of the firm in the department tenders as per Information Technology Act 2000. The digital signature of this authorized user will be binding on the firm.

**2.7** In case of any change in the authorization, it shall be the responsibility of management / partners of the firm to inform the certifying authority about the change and to obtain the digital signatures of the new person / user on behalf of the firm / company. The procedure for application of a digital certificate however will remain the same for the new user.

2.8 The same procedure holds true for the authorized users in a private/Public limited company. In this case, the authorization certificate will have to be signed by the directors of the company.

3 **Pre-requisites for online bidding:**

In order to operate on the electronic tender management system, a user's machine is required to be set up. A help file on system setup/Pre-requisite can be obtained from Nextenders (India) Pvt. Ltd. or downloaded from the home page of the website - <https://haryanaeprocurement.gov.in>. The link for downloading required java applet & DC setup are also available on the Home page of the e-tendering Portal.

4 **Online Viewing of Detailed Notice Inviting Tenders:**

The bidders can view the detailed N.I.T and the time schedule (Key Dates) for all the tenders floated through the single portal eProcurement system on the Home Page at <https://haryanaeprocurement.gov.in>.

5 **Download of Tender Documents:**

The tender documents can be downloaded free of cost from the eProcurement portal <https://haryanaeprocurement.gov.in>

6 **Key Dates:**

The bidders are strictly advised to follow dates and times as indicated in the online Notice Inviting Tenders. The date and time shall be binding on all bidders. All online activities are time tracked and the system enforces time locks that ensure that no activity or transaction can take place outside the start and end dates and the time of the stage as defined in the online Notice Inviting Tenders.

7 **Online Payment of Tender Document Fee, eService fee , EMD fees & Bid Preparation & Submission (PQQ/ Technical & Commercial/Price Bid):**

i) Online Payment of Tender Document Fee + e-Service fee:

The online payment for Tender document fee, eService Fee & EMD can be done using the secure electronic payment gateway. The Payment for Tender Document Fee and eService Fee shall be made by bidders/ Vendors online directly through Debit Cards & Internet Banking Accounts and the Payment for EMD shall be made online directly through RTGS / NEFT & OTC. The secure electronic payments gateway is an online interface between contractors and Debit card / online payment authorization networks.

ii) PREPARATION & SUBMISSION Of online APPLICATIONS/BIDS:

Detailed Tender documents may be downloaded from e-procurement website (<https://haryanaeprocurement.gov.in>) and tender mandatorily be submitted online.

**Scan copy of Documents to be submitted/uploaded for Prequalification or Technical bid under online PQQ/ Technical Envelope:** The required documents (refer to DNIT) shall be prepared and scanned in different file formats (in PDF /JPEG/MS WORD format such that file size is not exceed more than 10 MB) and uploaded during the on-line submission of PQQ or Technical Envelope.

**FINANCIAL or Price Bid PROPOSAL shall be submitted mandatorily online under Commercial Envelope and original not to be submitted manually)**

8. **ASSISTANCE TO THE BIDDERS:-**

In case of any query regarding process of E-tenders and for undertaking training purpose, the

intended bidder can also avail the following and can contact service provider as per below:

**Office Timings of Help-desk support** for Single e Procurement Portal of Government of Haryana- Technical Support Assistance will be available over telephone Monday to Friday (09:00 am. to 5:30 pm) & Training workshop will be conducted on every 1st, 2nd Friday (from 3:30 pm upto 6:00 pm) and 4th Saturday (from 11:30 am upto 3:00 pm) of each month.

All queries would require to be registered at our official email-[chandigarh@nextenders.com](mailto:chandigarh@nextenders.com) for on- time support (Only those queries which are sent through email along with appropriate screenshots or error description will be considered as registered with the Help-desk)

**Important Note:-**

- (a) Any intending bidder can contact the helpdesk on or before prior to 4 hours of the scheduled closing date & time of respective e-Auction/ Tender event.
- (b) For queries pertaining to e-Payment of EMD, please contact the helpdesk at least 2 business days prior to the closing date & time of e-Auction/Tender event.
- (c) Help-desk support will remain closed during lunch break i.e. from 1:30 PM up to 2:15 PM on each working day.

**Schedule for Training:**

<b>Training workshop will be held on 1st, 2nd Friday (from 3:30 pm upto 6:00 pm) and 4<sup>th</sup> Saturday (from 11: 30 am upto 3:00 pm) of each month at following addresses:</b>		
Nextenders (India) Pvt. Ltd Municipal Corporation Faridabad, Near B.K.Chowk, Opp. B.K.Hospital, NIT, <b>Faridabad</b> Contact no. 8743042801 / 9310335475	Nextenders (India) Pvt.Ltd. Public Health Division No. 2 Hisar, Model Town Opp. N.D Gupta Hospital, <b>Hisar</b> Contact: 9034357793	Nextenders (India) Pvt. Ltd., Nirman Sadan (PWD B&R), Plot No.- 01, Basement, Dakshin Marg, Sec- 33 A, <b>Chandigarh</b> - 160020 <b>For Support- 1800-180-2097,</b> 0172-2582008-2009

For Support Call – 1800-180-2097

**Haryana eProcurement Help Desk Office will remain closed on Saturday (except 4<sup>th</sup> Saturday), Sunday and National Holidays**



**NOTE:-** Bidders participating in online tenders shall check the validity of his/her Digital Signature Certificate before participating in the online Tenders at the portal <https://haryanaeprocurement.gov.in>.

For help manual please refer to the 'Home Page' of the e-Procurement website at <https://haryanaeprocurement.gov.in>, and click on the available link 'How to...?' to download the file.

### **Guideline for Online Payments in e-tendering**

Post registration, bidder shall proceed for bidding by using both his digital certificates (one each for encryption and signing). Bidder shall proceed to select the tender he is interested in. On the respective Department's page in the e-tendering portal, the Bidder would have following options to make payment for tender document & EMD:

A. Debit Card

B. Net Banking

C. RTGS/NEFT

Operative Procedures for Bidder Payments

#### **A) Debit Card**

The procedure for paying through Debit Card will be as follows.

- (i) Bidder selects Debit Card option in e-Procurement portal.
- (ii) The e-Procurement portal displays the amount and the card charges to be paid by bidder. The portal also displays the total amount to be paid by the bidder.
- (iii) Bidder clicks on "Continue" button
- (iv) The e-Procurement portal takes the bidder to Debit Card payment gateway screen.
- (v) Bidder enters card credentials and confirms payment
- (vi) The gateway verifies the credentials and confirms with "successful" or "failure" message, which is confirmed back to e-Procurement portal.
- (vii) The page is automatically routed back to e-Procurement portal
- (viii) The status of the payment is displayed as "successful" in e-Procurement portal. The e-Procurement portal also generates a receipt for all successful transactions. The bidder can take a print out of the same,
- (ix) The e-Procurement portal allows Bidder to process another payment attempt in case payments are not successful for previous attempt.

#### **B) Net Banking**

The procedure for paying through Net Banking will be as follows.

- (i) Bidder selects Net Banking option in e-Procurement portal.

- (ii) The e-Procurement portal displays the amount to be paid by bidder.
- (iii) Bidder clicks on "Continue" button
- (iv) The e-Procurement portal takes the bidder to Net Banking payment gateway screen displaying list of Banks
- (v) Bidder chooses his / her Bank
- (vi) The Net Banking gateway redirects Bidder to the Net Banking page of the selected Bank
- (vii) Bidder enters his account credentials and confirms payment
- (viii) The Bank verifies the credentials and confirms with "successful" or "failure" message to the Net Banking gateway which is confirmed back to e-Procurement portal.
- (ix) The page is automatically routed back to e-Procurement portal
- (x) The status of the payment is displayed as "successful" in e-Procurement portal.

The e-Procurement portal also generates a receipt for all successful transactions. The bidder can take a print out of the same. (xi) The e-Procurement portal allows Bidder to process another payment attempt in case payments are not successful for previous attempt.

#### **C) RTGS/ NEFT**

The bidder shall have the option to make the EMD payment via RTGS/ NEFT. Using this module, bidder would be able to pay from their existing Bank account through RTGS/NEFT. This would offer a wide reach for more than 90,000 bank branches and would enable the bidder to make the payment from almost any bank branch across India.

I. Bidder shall log into the client e-procurement portal using user id and password as per existing process and selects the RTGS/NEFT payment option.

ii. Upon doing so, the e-procurement portal shall generate a pre-filled challan. The challan will have all the details that is required by the bidder to make RTGS-NEFT payment.

iii. Each challan shall therefore include the following details that will be pre-populated:

- Beneficiary account no: (unique alphanumeric code for e-tendering)
- Beneficiary IFSC Code:
- Amount:
- Beneficiary bank branch:
- Beneficiary name:

iv. The Bidder shall be required to take a print of this challan and make the RTGS/NEFT on the basis of the details printed on the challan.

v. The bidder would remit the funds at least T + 1 day (Transaction + One day) in advance to the last day and make the payment via RTGS / NEFT to the beneficiary account number as mentioned in the challan.

vi. Post making the payment, the bidder would login to the e-Tendering portal and go to the payment page. On clicking the RTGS / NEFT mode of payment, there would be a link for real time validation. On clicking the same, system would do auto validation of the payment made.

#### **D) Over-the-Counter (OTC)**

This solution shall allow the bidder having account with ICICI Bank, to make the payment from any CMS enabled Branch of ICICI Bank in India. Bidders can make the payment via cash(if amount is <= ₹ 49,999), Demand Draft or ICICI Bank Cheque.

The procedure for paying through OTC mode is as follows:

- (i) Bidder selects Over-the-Counter remittance option in e-Procurement portal.
- (ii) The e-Procurement portal displays the amount to be paid. Bidder chooses the bank account no. for refund of the amount.
- (iii) Bidder clicks on "Continue" button
- (iv) The e-Procurement portal displays the details of payment. Bidders clicks on "print \_challan" and prints the OTC challan.
- (v) Bidder submits the OTC challan at the counter of any designated branch of ICICI Bank with Cash / Demand Draft / ICICI Bank Cheque (Payment in cash is allowed upto Rs. 49,999/-)
- (vi) ICICI Bank verifies the URN (format to be discussed and decided) and Amount with e- Procurement portal prior to accepting the payment
- (vii) On successful verification from e-Procurement portal, ICICI Bank accepts the payment. In case of failure, ICICI Bank shall return back the OTC challan and payment to the Bidder.
- (viii) ICICI Bank will commit the payment transaction (in case of successful verification from e- Procurement portal) and sends the Bank Transaction Number (I-Sure Reference Number) online against the URN and Amount.
- (ix) ICICI Bank will generate receipt for the payment transaction and issues the same to the Bidder.
- (x) The e-Procurement system updates the bank transaction number against the URN and Amount based on details sent by ICICI Bank online prior to generation of receipt.
- (xi) The status of payment will be displayed as "verification successful" in e-Procurement portal, when the bidder clicks on verification option in the portal

(xii) Bidder would be required to upload the scan copy of receipt as received from ICICI Bank as part of proof in Nextender portal before submitting the tender

Sr no.	Scenario	Do's / Don't's
1	<p style="text-align: center;"><b>In the event of making Payment through NEFT/RTGS</b></p>	<p>Do's</p> <ul style="list-style-type: none"> <li>• It is the bidder's responsibility to ensure that RTGS/NEFT payments are made to the exact details as mentioned in the challan which are:               <ol style="list-style-type: none"> <li>1) Beneficiary account no: &lt;client code&gt; + &lt;random number&gt;</li> <li>2) Beneficiary IFSC Code: As prescribed by ICICI Bank (this shall remain same across all tenders)</li> <li>3) Amount: As mentioned on the challan. It is specific for every tender/transaction</li> <li>4) Beneficiary bank branch: ICICI Bank Ltd, CMS</li> <li>5) Beneficiary name: As per the challan</li> </ol> </li> <li>• For every tender, details in the challan are different and specific to that tender only. Bidder should not make use of a challan for making payment for another tenders' EMD</li> <li>• It is advised that all the bidders make payment via RTGS/NEFT at least one day in advance to the last day of tender submission as certain amount of time is required for settlement and various parites are involved. The payment may not be available for the bidder validation. In such cases bidder may not be able to submit the tender</li> <li>• Bidder has to make only single payment against a challan as per the amount mentioned on the challan.</li> <li>• Bidder must do the payment before tender validity gets expired</li> </ul>

		<p><b>Don't's</b></p> <ul style="list-style-type: none"> <li>• Bidder should not enter erroneous details while filling the NEFT/RTGS form at their bank. The following possibilities may arise:             <ol style="list-style-type: none"> <li>1) Incorrect IFSC code mentioned:- Transaction would be rejected and the amount would be refunded back in to the bidders account</li> <li>2) Incorrect Beneficiary account number mentioned(&lt;client code&gt; + &lt;random number&gt;):-                 <ol style="list-style-type: none"> <li>a) In case, the beneficiary account number mentioned is incorrect the transaction would be rejected and the bid would not be accepted.</li> </ol> </li> <li>3) Incorrect Amount mentioned: The amount would be rejected if the amount mentioned in while making the payment is incorrect. Such cases will be captured as unreconciled transactions and will be auto-refunded directly to bidder's account.</li> </ol> </li> </ul> <p>In the event of any discrepancy, payment would not be considered and bidder would not be allowed to bid/ participate.</p> <ul style="list-style-type: none"> <li>• Bidder is not supposed to use challan generated in one tender for payment against another tender since details in the challan are unique to the tender and bidder combination.</li> <li>• Bidder must not make multiple or split payments against a particular challan. Any split payment received against the same challan will be refunded back to the bidder.</li> <li>• Bidder would not be entitled to claim that he is deprived of participating in the tender because his funds are blocked with the division on account of incorrect payment made by the bidder</li> </ul>
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2	<p><b>In the event of making Payment through OTC</b></p>	<p><b>Do's</b></p> <ul style="list-style-type: none"> <li>• It is the bidder's responsibility to ensure that OTC payments are made to the exact details as mentioned in the challan which are: Beneficiary account no: &lt;client code&gt; + &lt;random number&gt; Amount: As mentioned on the challan It is specific for every tender/transaction Beneficiary name: As per the challan Bidder has to make only single payment against a challan as per the amount mentioned on the challan</li> <li>• Bidder must do the payment before tender validity gets expired</li> <li>• Bidder needs to mandatorily upload the scan copy of the payment receipt issued by ICICI Bank, in Nextender Portal before submitting the Tender</li> </ul>
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		<p><b>Don't's</b></p> <ul style="list-style-type: none"><li>• If the bidding amount is greater than Rs49,999, then Bidder should not make payment in cash. In this case, Bidder should pay via Demand Draft/ICICI Bank Cheque</li><li>• It is bidders's responsibility to ensure that Demand draft should be valid and should not have discrepancies such as signature not found, stale DD, mutilated, material alteration, favouring third party etc., In the event of Demand Draft returned by bidder's Bank on account of such discrepancies, ICICI Bank shall ensure that such communication is sent to the Client within 3 days from the date of rejection by the Bidder's Bank</li><li>• For every tender, details in the challan are different and specific to that tender only. Bidder should not make use of a challan for making payment for another tenders' EMD</li></ul>
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**Dean, Faculty of Life Sciences  
M. D. University, Rohtak**

## **TERMS AND CONDITIONS GOVERNING THE TENDERS FOR THE SUPPLY**

1. Every e-tender shall be accompanied by the earnest money equal to 2% of the involved value and Rs.3000/- as tender fee should be deposited through online/netbanking. The earnest money should be deposited through online/netbanking/RTGS.
2. The e-tender received without earnest money or after the due date shall not be entertained except with the special approval of the competent authorities.
3. The supplies shall be executed within the time specified in the supply order which may be extended by the Registrar on other application of the supplier explaining reasons/circumstances due to which time limit could not be adhered to. In the event of the supplier failing to supply the material within time, he shall be liable to pay as compensation an amount equal to one percent or such small amount as the Registrar may decided on the said amount of the contract, for every day that the quantity remains incomplete, provided that the entire amount of compensation shall not exceed 10 percent of the total amount of the contract. An appeal against these orders shall however lie with the Vice Chancellor whose decision shall be final.
4. In case the contractor backs out of his contract, the earnest money deposited by him shall be forfeited besides any other action as may be considered necessary by the Vice-Chancellor.
5. All the charges including packing, forwarding and installation, taxes and other levies should be specified in the tender. The charges etc. not specified in the tender shall not be paid.
6. The quantity of material/supplies shall be subject to increase or decrease on the tendered rates. This increase or decrease shall be communicated by the University within 30 days of acceptance of the tender.
7. Supplies shall be made as per the schedule and within such time as is indicated in the supply order.
8. 100% payment will be made on receipt and inspection of goods to ensure the specifications and their good condition.
9. The rates accepted by the University shall be applicable up to 31.3.2017 and the supplier shall have to make supply during the period as and when required.
10. **The e-tenders shall be opened in the office of Dean, Faculty of Life Sciences, M.D. University, Rohtak on 28.02.2017 at 10.00 a.m. by the Purchase Committee in the presence of contractor/supplier and the Committee reserves the right for negotiation thereafter if considered necessary.**
11. The Registrar reserves the right to reject or accept any offer without assigning any reasons.
12. All disputes subject to **Rohtak jurisdiction**.
13. Guarantee/warranty of items must be mentioned.
14. **The University stands exempted from the payment of Central Excise Duty/Custom Duty. The rates be quoted keeping that fact in view, Necessary certificate will be provided by the University.**
15. No tender documents will be issued and rates are to be offered on company's letter pad.
16. If a holiday occurs on the opening day, the tenders will be opened on the next working day.
17. Technical documents must reach up to 28.02.2017 05.00 PM.

**List of Technical Documents:-**

Sr. No.	Description	Bidders Response (Yes/No)	Remarks
1.	Authorization certificate from the manufacturer of equipment.		
2.	Copy of PAN Card		
3.	Copy of latest Income Tax Return		
4.	List of institutions where Vertical Laminar Air Flow has been installed		
5.	Satisfactory report regarding the equipment from institution		
6.	Specification of the Equipment		

**Specifications of the equipments to be purchased from UGC grant allotted to the Life Sci Fac.**

S. No.	Equipments	Quantity	Specifications
1.	Refrigerated centrifuge	4 +1 (with swing bucket rotor)	<p>Make-sigma-svi, thermoscientific, eppendorf, Microprocessor controlled, freely programmable with graphic screen, fitted with Maintenance Free, noiseless, brushless induction motor drive, selection of time should be upto 10 sec. to 9 hrs. Magnetic rotor identification &amp; imbalance sensor, Temperature Range: -10 to + 30°C and refrigeration should be CFC free; Digital speed indicator for RPM and RCF; Digital temperature indicator; Pre-cooling function with direct button; safety lid lock; Max speed at least: 18,000 rpm and 21,000 g; should come with three fix angle rotors of 1.5/2.0ml, 10/15ml and 50ml capacity, warranty minimum two years, a microcentrifuge with speed of 12000rpm and rotor should also be supplied with centrifuge.</p> <p><b>One ref. Centrifuge with following rotors are required</b></p>



			<p>a) High capacity <b>Swing Bucket Rotor</b> with rcf 3200xg/4000 rpm or more (total working capacity 4x250ml or more): Buckets and adaptors should be provided to centrifuge: 50ml conical tubes –16 no's, and 15ml conical tubes –36 no's.</p> <p>b) Plate buckets for swing out rotor for spinning 4 - 16MTP/4 DWP/8 culture Plate (no need to change the rotor).</p> <p>c) Fixed angle rotor options;30x1.5/2.0ml, 48x1.5/2.0ml, 20x5.0ml tube, 6x85/100 &amp; 0.2ml pcr strip tube rotor options should be there</p>
2	UV-Visible Spectrophotometer	3	<p>Make- thermoscientific, Sigma, Shimadzu <b>Double beam</b>, options for enzyme kinetics, wavelength accuracy - 1nm, resolution: 1nm, working range:190-900nm, Absorbance: -3.0 to +3.0, spectral bandwidth: 1-2nm, should be supplied with computer having Window compatible operating system and one set each of glass and quartz cuvettes, warranty: two year</p>
3	Automatic Nitrogen/Protein Estimation System	1	<p><b>Microprocessor based programmable 6 place macro block digestion system</b> PC compatible with inbuilt software program suitable for micro nutrient, macro nutrient and trace element, Casted Aluminium alloy heaters for uniform heating, Bright Digital Two line LCD Display, Auto alarm for user's attention, Auto power off mode on completion of digestion. <b>(ISO 9001:2008 Certified &amp; CE Certified).</b></p> <p><b>Automatic Microprocessor based acid neutralization scrubber</b> with digital display with pump for water recirculation, auto waste disposal &amp; auto drain of tank water after pre programmable consecutive operations. <b>(ISO 9001:2008 Certified &amp; CE Certified)</b></p> <p><b>Autosequencing Microprocessor based PC Compatible Distillation System</b> with in-built software with 8 Programmable steps and 30 Predefinable User Storage Auto Sequence Programmes. Two line Alpha numeric Digital LCD Display, Automatic Dilution, dilution delay time, Automatic Alkali Addition, Automatic Reaction Delay time for Neutralization, Automatic Steam</p>

			<p>Processing, Automatic setting time, Automatic Titration Connectivity Features, Process over indication with alarm, Tube insert error and auto door open warning indication. Auto deactivation of System on error diagnosis, Adjustable steam power: 10-100%, Auto online water saving mechanism. Auto reagent Level Sensor with Indication and Alarm for Reagents. Automatic water refilling and monitoring, Standard RS 232 connectivity kit with USB port. Distillation Capacity: 15-20 Samples/hr, Nitrogen Recovery &gt; 99.5%, High grade Stainless steel non corrosive steam Generator, Fully Automatic water level monitoring with centrifugal refilling pump &amp; Perilstatic pump for reagents addition. Electrical Requirement - 220V/50Hz. <b>(ISO 9001:2008 Certified &amp; CE Certified)</b></p> <p><b>Digital Burette Titration System</b>  Compact Titration System. Accurate 2 nd decimal digital display at equivalence point. Volume ml - 50ml, subdivision ml - 0.02, Accuracy - + 0.2 %. PTFE Piston, Titration recirculating valve telescoping filing tube with Inspection Window, Easy grip hand wheel action and smooth precision gears for fast or drop wise titration make handling extremely simple and reliable, Conformity certified with electronic volume display, Special Amber Colour Cap for Sensitive Solution. Horizontal &amp; Vertical adjustment of Titration Tube with Integrated Discharge valve, Auto switche off feature on longer periods of inactivity and built in timer for Auto Power off Programming.</p>
4	Automatic Solvent Extraction System PC	1	<p>Automatic Programmable Four Place Superior Graphical Automatic Autosequencing Solvent Extraction System (PC Compatible Superior Graphical Version) with USB Port for oil/fat extraction, Number of Samples : Four, Heater Source: Casted Aluminium Alloy, Fully Automatic PC Compatible System, Direct USB port for PC / Laptop compatibility without the need of any RS 232 or RS 485 Convector, Two line bright digital LCD display, 25 Intelligent memory programs of</p>

			<p>twelve autosequencing steps, 300 memory segments, Autosequential extraction with auto phase change over of boiling, condensation, rinsing and recovery phases, Auto Alarm for recovery phase, Auto switch off at end of extraction procedure, Inbuilt Airpump for predrying and solvent cloud evaporation, Additional Superior PC chart software, Accuracy <math>\pm 1^{\circ}\text{C}</math>, Automatic collection of recovered solvent, Optical sensor prevents overflowing of solvent recovery tank, Microbrilliant Auto Start &amp; Stop mechanism, Live Schematic process flow feature, Graphical representation of time and temperature gradient, Extraction Thimble: Thick Nitrocellulose thimble (f25mm X 80mm) &amp; (f33mm X 80mm) - 1 box each, 5 stage extraction - boiling, Condensation, rinsing, solvent recovery and Predrying steps. Temperature Range: <math>35^{\circ}\text{C}</math> to <math>200^{\circ}\text{C}</math>. Temperature Indication: Digital, Temperature Controller: Microprocessor based PID Controller with Auto tuning facility. Temperature Setting: Feather touch membrane keys, Independent loading of sample with individual mechanical controls. Built in safety features. ISO 9001:2008 Certified &amp; CE Certified. Electrical Requirement: 230V/50Hz. AC Mains.</p>
5	Ball Mill	1	<p>Laboratory ball mill for mixing and grinding, electrically operated, capacity from few grams to 0.5 kg, fitted with variable speed motor with rpm of 100-200. Jar should be made up of stainless steel having stainless steel, easily removable for cleaning with stainless steel balls of diameter 10 mm to be put in the jar for mixing and grinding powders. Operation should be with 220 volt</p>
6	Electric mortar pestle	1	<p>Useful for grinding of no-gummy and non fibrous materials, fitted with on/off timer allowing selection of grinding time. Mortar covered with acrylic cover with mortar diameter of 6 inches. Machine should work with 220/230 volts.</p>

7	Horizontal & Vertical gel Electrophoresis units with power pack and accessories	4	<p><b>Make: Bio-Rad, GE healthcare, Genetix Brand</b></p> <p><b>Horizontal Electrophoresis Cell (N=4)</b></p> <p>Single mold, heating-proof, corrosion proof &amp; no leaking. Abundant buffer that makes sound result of cooling &amp; keeps the pH stable in the process of electrophoresis. Unfolded electrodes that makes it simpler, more convenient &amp; safe to change &amp; repair. The upper lid that efficiently prevents the liquid in the cell from scattering or touching electricity, switch off when opening the lid &amp; keep the operators safe. It applies for the test &amp; separation, preparation of DNA &amp; tests molecular weight.</p> <p>Dimensions:</p> <p>1. <b>Gel Size (WxL)</b> : 20x25(cm), 20x12.5(cm), 20x6.25(cm)</p> <p>2. <b>Comb wells</b> : 22, 24, 36, 44</p> <p>3. <b>Buffer Requirement</b> : 1700ml</p> <table border="1" data-bbox="737 953 1377 1671"> <thead> <tr> <th>Accessory</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>Body Tank(includes electrodes)</td> <td>1</td> </tr> <tr> <td>Gel Tray (25x20cm, 12x12cm, 10x8cm, 6x6cm)</td> <td>1+1+1+1</td> </tr> <tr> <td>Gel Caster</td> <td>4</td> </tr> <tr> <td>Comb (24 well, 1.0mm)</td> <td>2</td> </tr> <tr> <td>Comb (36 well, 1.0mm)</td> <td>2</td> </tr> <tr> <td>Comb (22 well, 1.5mm)</td> <td>2</td> </tr> <tr> <td>Comb (44 well, 1.5mm)</td> <td>2</td> </tr> <tr> <td>Comb (24 well, 2.0mm)</td> <td>2</td> </tr> <tr> <td>Comb (36 well, 2.0mm)</td> <td>2</td> </tr> <tr> <td>Comb (10well, 1mm) for 10x8cm gel tray</td> <td>2</td> </tr> <tr> <td>Comb (15well, 1mm) for 10x8cm gel tray</td> <td>2</td> </tr> <tr> <td>Rack for combs</td> <td>4</td> </tr> <tr> <td>Electrical Cables</td> <td>2 pairs</td> </tr> </tbody> </table> <p><b>Vertical Gel Electrophoresis (N=4)</b></p> <p>Polycarbonate Construction</p> <p>Gel sizes 8.2x8.5cm (W x L), Midi and Large</p> <p>Double gel casting system</p>	Accessory	Qty	Body Tank(includes electrodes)	1	Gel Tray (25x20cm, 12x12cm, 10x8cm, 6x6cm)	1+1+1+1	Gel Caster	4	Comb (24 well, 1.0mm)	2	Comb (36 well, 1.0mm)	2	Comb (22 well, 1.5mm)	2	Comb (44 well, 1.5mm)	2	Comb (24 well, 2.0mm)	2	Comb (36 well, 2.0mm)	2	Comb (10well, 1mm) for 10x8cm gel tray	2	Comb (15well, 1mm) for 10x8cm gel tray	2	Rack for combs	4	Electrical Cables	2 pairs
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			<p>Glass plates with fixed glass spacers</p> <table border="1"> <thead> <tr> <th>Accessories</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>Body Tank (includes electrodes)</td> <td>1</td> </tr> <tr> <td>Notched Plate</td> <td>2</td> </tr> <tr> <td>Spacer Plates with 0.75mm Spacer</td> <td>2</td> </tr> <tr> <td>Spacer Plates with 1.0mm Spacer</td> <td>2</td> </tr> <tr> <td>Spacer Plates with 1.5mm Spacer</td> <td>2</td> </tr> <tr> <td>Wedged-Shaped Plates</td> <td>2</td> </tr> <tr> <td>Comb, 11 Wells, 1mm thickness,</td> <td>2</td> </tr> <tr> <td>Comb, 11 Wells, 1.5mm thickness,</td> <td>2</td> </tr> <tr> <td>Comb, 15 Wells, 1mm thickness,</td> <td>2</td> </tr> <tr> <td>Comb, 15 Wells, 1.5mm thickness,</td> <td>2</td> </tr> <tr> <td>Gel caster</td> <td>1</td> </tr> <tr> <td>Electrical Cables</td> <td>2 pairs</td> </tr> </tbody> </table> <p><b>Power Supply (N=4)</b>  Light, Smart &amp; Simple to operate  Automatic memory &amp; can share ten most common electrophoresis programs  Use the microprocessor for control  Automatic Memory  Automatic switch off on overload or no load  Touch keypad, Optional function of recovering after power cut off  Type of Output: Constant - Voltage, Current, power  Output Range : 10-600V, 1-500mA, 1-300W  Resolution : Volt 1V, Current 1mA, Power 1W  Time Range: 1min – 9hr 9min.  Display : LCD, Output Pack : 4</p>	Accessories	Qty	Body Tank (includes electrodes)	1	Notched Plate	2	Spacer Plates with 0.75mm Spacer	2	Spacer Plates with 1.0mm Spacer	2	Spacer Plates with 1.5mm Spacer	2	Wedged-Shaped Plates	2	Comb, 11 Wells, 1mm thickness,	2	Comb, 11 Wells, 1.5mm thickness,	2	Comb, 15 Wells, 1mm thickness,	2	Comb, 15 Wells, 1.5mm thickness,	2	Gel caster	1	Electrical Cables	2 pairs
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8	Shaking water bath	1	Usable internal dimensions per tank: 175 x 175 x 100mm, Sample holder: 128 x 128mm, Shaking frequency: 2 to 50rpm, Shaking speed adjustment: continuously settable , Shaking amplitude: 22mm, Supply requirement: 230V 50/60Hz, 1.3kW, Net/gross weight: 28/36kg, Usable bath height: 80mm, Sample holder height-																										

			adjustable: 32mm, Temperature Range: 5°C to 99.9°C, Temperature control: Electronic microprocessor-controlled with proportional-plus-integral control (PI), Temperature Accuracy: ±0.1°C, Temperature display/adjustment: Digital LED, Over-temperature cut-out: electronic 4°C above set temperature and electro-mechanical > 130°C, Shaking motion: Reciprocating and can be switched on/off, Capacity: 20L, Racks: For 1.5ml tubes and 15ml tubes.
9	Refrigerated orbital Shaker	2	Sci-genics, Sigma-svi, New-brunswick , Kuhner Refrigerated shaker, Stainless steel inner chamber, temp 5 degree to 80 degree with accuracy +/- 0.5° C in 5°C to 24.9°C., +/- 0.3° C in 25°C to 36.9°C +/- 0.1° C in 37°C to 80°C), Shaker should be Variable speed (0-300rpm), Digital rpm display, Digital temperature Controller & platform to accommodate 100, 250, 500 and 1 litre clamps
10	BOD incubator	2 +1 (with humidity controller)	Make-NSW Micro processed temperature controller: with its accessories fixed to cut off automatically either heating or cooling system with +/- 1 °C accuracy, 10 Cu.Ft. (570 x 550 x 875 mm) 280 ltrs. Inside chamber and shelves: Stainless Steel instead of Anodized Aluminum Interior illumination: 3 no. Fluorescent tubes of 60 cms length having separate ON-OFF switch for tubes and minimum temperature can be obtained from 10 °C to 50 °C when all the tubes are "ON" with Timer 0-24 hrs, B.O.D. Incubator: Fitted for incubation in CO2 / air mixture, Humidity control: 55% - 95% by Micro processed digital temperature controller & RG control with SV & PV
11	Bio safety Cabinet Class III	1	Bio safety Cabinet- Class III Working Size: W 900 x D 600 x H 600 mm Overall Size: W 1400 x D 750 x H 2050 mm with stainless steel construction 100% exhaust, Negative Pressure 0.3 Micron & Above

			<p>100 FPM ± 20, 80 FPM ± 20  65 decibel on "A" scale ± 5  0 - 25 mm Magnehelic Gauge  Polycarbonate Front door with Pneumatic Lift &amp; Glove Port Arrangement and full airtight construction  Gloves: 6" dia, and 24" length Latex Gloves &amp; Glove ports  The Cabinet made from IS 304 Grade Stainless Steel with matt finish and bottom will be supported with SS stand. The entire working zone is lined with IS 304 grade stainless steel materials with coving on corners for easy cleaning.  Made of IS 304 Stainless Steel - satin finished  The entire working zone is lined with IS 304 grade stainless steel materials with coving on corners for easy cleaning.  Made of clear 5 mm Polycarbonate sheet with Glove Port arrangement – Front opening with pneumatic lift operating and full air tight constructions.  Pass through box should be designed to transfer samples and other work items to be passed to and from the room which must acts as an air lock device preventing ambient air from entering, or clean air from exiting the cabinet.  1200 CFM displacing capacity having a static of 40 mm WG and made of mild steel with PU coated finish and directly driven by a single phase, 1440-RPM motor.  The exhaust motor &amp; blower unit will be mounted inside the cabin or on the terrace and connected to an exhaust duct made of rigid PVC pipe of <b>10</b> feet length. Suitable canopy will be provided at the end of the duct.  Pressure Magnehelic Gauge, 1 No - 5/15A Power point, Gas inlet nozzle, floor leveling screws, wire chord</p>
12	Photo-ionisation detector (PID) for volatile organic compounds	1	<p>Make : PhoCheck Tiger  Intrinsically safe photo ionization gas detector for detecting volatile organic compounds  Standards required: Electrical apparatus for explosive gas atmosphere, Class A code for Federal Regulations, Electromagnetic</p>

			compatibility, electrical equipment for measurement control and laboratory use for emmision and immunity section only. Equipement protection by intrinsic safety. Quality management system, potentially explosive atmosphere
13	Deep Freezer (-20 <sup>0</sup> C)	1	Make Celfrost Vertical; No. of shelves: 4; Effective Volume: 320 Lts; Temp. range: -20 <sup>0</sup> C
14	ELISA Reader/ Multiplate Reader	1	Make: BioTek, Abcam, BioCompare, Biorad, Fisher Microplate Type: 6- to 384-well and Terasaki Plates, Detection Mode: Absorbance, Reading Modes: Endpoint; kinetic (under computer control), Onboard Software: 55 user-definable programs: Gen5™ Compatible, Inbuilt microplate shaking, Filter Wavelength Range: 300-750 nm, Dynamic Range: 0 to 3.0 OD, Resolution 0.001 OD, OD Accuracy: < 1 % at 2.0 OD, OD Linearity: < 3 % at 3.0 OD, Reading Speeds Rapid Mode: Measurement time in 10 seconds or less, Warranty – 1Year and 3 years AMC.
15	CO2 Incubator	1	Make: Eppendorf Stackable CO2 incubator certified by ISO 9001and CE Chamber Volume 170-180 lts. Internal Chamber should be Type 304 Stainless Steel with min. 3 removable & adjustable perforated shelves ( For natural air flow) Temperature Range: Ambient +5°C to 60°C, accuracy: ±0.1°C CO2 Concentration Range: 0 to 20%, Control: ± 0.1%, accuracy: ±0.1% CO2 inlet pressure should be 0.3 bar Should have Precise direct-heat temperature control with Dual Beam IR (infrared) sensor Should have front door heater and frame heater to prevent condensation in chamber & Glass door Should have Microprocessor PID Control for precise & Accurate control Alphanumeric display with programmable Audio/visual alarm for temperature deviation from set point and CO2 deviation from set point Relative Humidity: Ambient to 93% - 98% at 37°C



			<p>Should have Six sides direct heating system having 3 parts of heating section controlled &amp; calibrated by 3 individual sensor</p> <p>Should have Dry wall and air jacketed system</p> <p>Should have Natural Air and moisture convection</p> <p>Should have HEPA filtration on all gas supply inlets</p> <p>Should have over heating limit protection</p> <p>Should have UV Sterilization system at 400-450 nm with Power of 40 W</p>
16	Lyophilizer	1	<p>Consider trap stainless steel, temperature is adjustable upto -40°C and microporocessor digital temperaturer controller, for minifold drying, system. Double stage vacuum pump futed with dial type vacuum gauge. Suitable to work on 220V, 50 Hz, AC supply, Capacity: 5 ltr for 12 tests.</p>
17	Microscope	1	<p>Olympus CH20i. Binocular observation head model, inclination 45 degree, interpupillary distance adjustment range 53-75 mm, diopter adjustment on the left.</p> <p>Achromatic Objectives: Olympus iNE 4x, iNE 10x, iNE 40x (spring), iNE 100x (Spring, oil). All achromat. All antifungus coated.</p> <p>Eyepiece: Olympus iCWHK10x LB widefield, antifungus coated.</p> <p>Focusing by coaxial coarse coarse and fine roller guide (rack and pinion type). Coarse movement stroke 20mm. Tension adjustment on right.</p> <p>Quadruple revolving nosepiece (fixed). Plane stage 120x132 mm. With mechanical stage right hand coaxial drive. Abbe condenser 1.25 (oil immersion), vertical adjustment range 10 mm, with aperture iris diaphragm. Blue filter.</p> <p>Built-in 6V, 20 W illuminator base with halogen lamp (with one spare). Plano-concave mirror unit. 8cc immersion oil. Plastic cover.</p>
18	Weighing Balance	1	<p>Minimum Display : 0.0001 g</p> <p>Repeatability (Standard Deviation) ≤0.1 mg</p> <p>Linearity: ±0.2 mg</p> <p>Response Time Approx. 2.0 seconds</p> <p>Operating Ambient Temperature: 5-40°C 20-85%</p> <p>Temperature Coefficient Sensitivity (ppm/C) : ±2ppm/°C (no condensation)</p>

			Pan Size (mm) approx. : $\Phi 91$ Internal Calibration : Yes
19	Online UPS	1	3KVA, Power backup for 6 hrs. Output Power: 3 watts, Pure Sine Wave, Online Double Conversion

**Dean, Faculty of Life Sciences,**

**M.D.U., Rohtak**