

LAHORE COLLEGE FOR WOMEN
UNIVERSITY LAHORE



**TENDER DOCUMENT FOR CHEMICALS, GLASSWARE & LAB
EQUIPMENT, COMPUTER SYSTEM, PHOTOCOPIER, USB
WATER BROWSER/WATER TANK, TYRES FOR BUSES AND
FURNITURE ITEMS**

Issued to: -----

Tender No. LCWU/Tender/2020-2021/04

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LAHORE COLLEGE FOR WOMEN UNIVERSITY, LAHORE

Ph. No.042-99203801-09 Ext. 286/210

www.lcwu.edu.pk

No. _____/LCWU

Dated: _____ 2020

TENDER NOTICE

Sealed tenders/ bids are invited from the firms registered with Sales Tax and Income Tax Departments for following Tender on the basis of **Single Stage (Two Envelope Procedure)** in terms of Rule No. **38 2(a)** of the Punjab Procurement Rules 2014 (PPRA Rules 2014).

Tender No.	Sr. No.	Tender Name	2% CDR Amount	Total Bid Cost	Qty.	Closing Time and Date	Opening Time and Date
LCWU/2020-2021/04	1.	Chemicals, Glassware, Plastic ware and Lab Equipment	84,000	4200,000	Detail in Tender documents	15-12-2020 till 12:00	15-12--2020 at 12:30 PM
	2.	Photocopier Machine	6000	300,000	2		
	3.	Computer system	1840	92,000	1		
		USB			1		
	4.	Water Browser (4000 litters) as per specification	12,000	600,000	1		
	5.	Buses Tyre+Tube+Flap Size:(900-20)	6,000	300,000	06-Tyre set		
6.	Furniture items	880	44,000	Detail in Tender documents			

- Tender Document will be immediately available on LCWU & PPRA Websites after publishing of this Tender Notice (Rule No. 25(1)).
- Tender Document can be obtained / downloaded from on the website of PPRA Punjab (www.ppra.punjab.gov.pk) and LCWU web site (www.lcwu.edu.pk) **Tender Fee of Rs.1000**, shall attached with tender documents as a Pay Order in favor of Vice Chancellor Lahore College for Women University, Jail Road, Lahore.
- The Bid Security, 2% of estimated price, in the form of "CDR in favor of Vice Chancellor Lahore College for Women University, Jail Road, Lahore is required to be submitted with the Financial Bid, without which the offer shall be rejected being non-responsive. The detail of amount of Bid Security is given in the Tender Document.
- Bids without supporting documents, undertaking, valid documentary evidence, and bids not conforming to terms and conditions given in the Tender Document will be liable for rejection.
- No supporting document will be accepted, at all, after opening of the Technical Bids.
- Bids received after due time and date or bids without Bid Security in shape of CDR or CDR less than required amount or Bid Security in shape of Cheque/ Cross Cheque/pay order/ Demand Draft/Banker's Cheque shall be summarily rejected.
- Vendors must quote their rates on the company letter pad / tender form according to the specifications. Hand written quoted rates will not be accepted.
- The sealed tenders must reach the University office through Registered post/ courier service by hand tender will not be accepted.

Chairperson Purchase Committee

Lahore College for Women University, Jail Road, Lahore

Ph. No.042-99203801-09 Ext. 286/210

INVITATION TO THE BID

Bids/Tenders are invited, for Tender Document for **CHEMICALS, GLASSWARE & LAB EQUIPMENT, COMPUTER SYSTEM, PHOTOCOPIER, USB WATER BROWSER/WATER TANK, TYRES FOR BUSES AND FURNITURE ITEMS** from Sales Tax and Income Tax Registered firms.

1. INSTRUCTIONS TO THE BIDDERS

- 1.1. Procurement will be made under Punjab Procurement Rules (PPRA) 2014.
- 1.2. It will be clearly understood that the Terms and Conditions mentioned in this document are intended to be strictly enforced.
- 1.3. Bidders must ensure that they submit all the required documents indicated in the Tender / Bid Documents at the time of opening of Technical Bids and no request for submission of missing documents will be entertained after opening of the Technical Bids.
- 1.4. Bids without supporting documents, undertaking, valid documentary evidence, and bids not conforming to terms and conditions given in the Tender Document will be liable for rejection. Bids received after due time and date or bids without Bid Security in shape of CDR or CDR less than required amount or Bid Security in shape of Cheque/ Cross Cheque/pay order/ Demand Draft /Banker's Cheque shall be summarily rejected.
- 1.5. Vendors must quote their rates on the company letter pad / tender form according to the specifications. Hand written quoted rates will not be accepted.
- 1.6. **Mode of Advertisement:**
As per Rule 12(2) the advertisement is being placed on the website of PPRA Punjab (www.ppra.punjab.gov.pk) and LCWU web site (www.lcwu.edu.pk)
- 1.7. **Type of Open Competitive Bidding**
As per Rule No. 38(2) a, Single stage two envelope procedures shall be followed with details given below:
 - 1.7.1. The bid shall comprise of a single package containing two separate envelopes. Each envelope shall contain separately the financial proposal and the technical proposal;
 - 1.7.2. The envelopes shall be marked as "FINANCIAL PROPOSAL" and "TECHNICAL PROPOSAL" in bold and legible letters to avoid confusion;
 - 1.7.3. Initially, only the envelope marked "TECHNICAL PROPOSAL" shall be opened; The envelope marked as "FINANCIAL PROPOSAL" shall be retained in the custody of procuring agency without being opened;
 - 1.7.4. The Purchaser shall evaluate the technical proposal under **PPRA Rule # 32** and in a manner prescribed in this document, without reference to the price and reject any proposal which does not conform to the specified requirements as listed in said Sections. During the technical evaluation no amendments in the technical proposal shall be permitted;
 - 1.7.5. The financial proposals of technically qualified bidders shall be opened publicly at a time, and venue announced and communicated to the bidders in advance;
 - 1.7.6. After the evaluation and approval of the technical proposal the procuring

agency, shall at a time within the bid validity period, publicly open the financial proposals of the technically accepted and qualified bids only. The financial proposal of bids found technically non-responsive shall be returned un-opened to the respective bidders .

1.8. **BID DATA SHEET (Information for the Bidders)**

1	Procuring Agency	Lahore College for Women University, Jail Road, Lahore
2	Tender Number	LCWU/Tender/2020-2021/04
3	Name of Tender	<ul style="list-style-type: none"> • Chemicals , Glassware & Lab Equipment • Photocopier Machine • Computer System & USB • Water Browser (4000 liter) • Tryre+Tube+flap for Buses • Furniture items
4	Tender Document available place	on the website of PPRA Punjab (www.ppra.punjab.gov.pk) and LCWU web site (www.lcwu.edu.pk)
5	Cost of Tender Document	Rs.1000/- attach Pay Order In favor of V.C Lahore College for Women University Jail Road Lahore (Non Refundable)
6	Bid Security	Rs. 84,000/- for chemicals, Glassware & Equipment Rs.6,000/- for Photocopier Machine Rs.1840/- for Computer System & USB Rs.12000/- for water Browser Rs.6000 for Tyre+Tube+Flap for Buses Rs.880/- Furniture items In shape of CDR in favor of "Vice Chancellor, Lahore College for Women University.
8	Performance Security	10% security will be retained from supplier's bill which will be returned after warranty period.(as per tender document) In Case of Letter of Credit firms will submit Bank Guarantee. The security shall be refunded to the Vendor/Supplier within one months of its becoming due, in case refund is not claimed, the security shall stand forfeited as unclaimed deposits. Claim for 10% security refund Performa is attached with tender document.
9	Tender Addressed to	Chairperson, Lahore College for Women University, Jail Road, Lahore
6	Contact Number	Ph. 042-99203801-09 Ext. 286/210
10	Due Date, Time and place of submission of Tender Document	15-12-2020 till 12:00 PM (through Registered courier) Diary Dispatch Section Room No. S-16 2 nd Floor Lahore College for Women University, Jail Road, Lahore
11	Date, Time and Place of Technical Bid Opening	15-12-2020 at 12:30 PM at Committee Room of Lahore College for Women University, Jail Road, Lahore
12	Date, Time and Place of the Financial Proposals	Shall be intimated subsequently to Technically Qualified firms

TERMS AND CONDITIONS OF THE TENDER

2. **Definitions**

2.1. "Purchaser" means Lahore College for Women University, Jail Road

Lahore

- 2.2. "LCWU" means Lahore College for Women University, Lahore
- 2.3. "Bidder/Tenderer" means the Firm/Company/Supplier/Distributor that may provide or provides the Goods and related services to any of the public sector organization under the contract and have registered for the relevant business thereof.
- 2.4. "Contract" means the agreement entered into between the Purchaser and the Contractor, in form of Supply Order or as recorded in the Contract Form signed by the parties, including all Schedules and Attachments thereto and all documents incorporated by reference therein.
- 2.5. "Contractor/The Successful Bidder" means the person whose Tender has been accepted and awarded letter of Acceptance followed by the Supply Order or Contract by the Purchaser.
- 2.6. "Contract Value" means that portion of the Contract Price adjusted to give effect to such additions or deductions as are provided for in the Contract which is properly apportion-able to the Goods or Services in question.
- 2.7. "Goods" means equipment, machinery, and/or other materials which the Contractor is required to supply to the Purchaser under the Contract.
- 2.8. "Services" means installation, configuration, deployment, commissioning, testing, training, support, after sale service, etc. of Goods and other such obligations which the Contractor is required to provide to the Purchaser under the Contract.
- 2.9. "PPRA" means Punjab Procurement Regulatory Authority.

3. TENDER ELIGIBILITY

Eligible Bidder/Tenderer is one who:

- 3.1. has valid registration certificates for Income Tax and Sales Tax;
- 3.2. is an active Income Tax Payer;
- 3.3. has got the experience in supply of relevant items;
- 3.4. has got the Technical Staff to execute the work;
- 3.5. conforms to the clause of "Responsiveness of Bid" given in this tender document;
- 3.6. has not been blacklisted.

4. EXAMINATION OF THE TENDER DOCUMENT

The bidder/Tenderer is expected to examine the Tender Document, including all terms and conditions.

5. AMENDMENT OF THE TENDER DOCUMENT

- 5.1. The Purchase Committee of Lahore College for Women University, at any time prior to the deadline for submission of the Tender, at its own initiative or in response to a clarification requested by the Bidder(s), amend the Tender Document, on any account, for any reason. All amendment(s) shall be part of the Tender Document and binding on the Bidder(s).

- 5.2. The Purchaser shall notify the amendment(s) in writing to the prospective Tenderers/Bidders.
- 5.3. The Purchaser may, at its exclusive discretion, amend the Tender Document to extend the deadline for the submission of the Tender, in which case all rights and obligations of the Purchaser and the Tenderers previously subject to the deadline shall thereafter be subject to the deadline as extended.

6. BID CURRENCY

Bidder should quote price in Pak Rupees for as tender notice.

7. VALIDITY PERIOD OF THE BID

- 7.1. Validity period of the bids shall be 90 days.
- 7.2. In exceptional circumstances, the Purchase Committee of Lahore College for Women University may ask the Bidders for an extension of the period of validity. The request and the responses shall be made in writing. A bidder accepting the request will not be required nor permitted to modify its tender.

8. BID SECURITY

Bidder will submit Bid Security drawn in the name of Vice Chancellor Lahore College for Women University against each lot with details given below: 10% security will be retained from supplier's bill which will be returned after warranty period. (as per tender document) In Case of Letter of Credit firms will submit Bank Guarantee. The security shall be refunded to the Vendor/Supplier within Six months of its becoming due, in case refund is not claimed, the security shall stand forfeited as unclaimed deposits.

8.1.

(The required amount of Bid Security, for each lot, does not exceed 2% of estimated cost of the lot)

Sr. No.	Tender Name	CDR Amount
1	Chemicals, Glassware and Lab Equipment	84,000
2	Photocopier Machine	6,000
3	Computer system	1,840
	USB	
4	Water Browser (4000 liters) as per specification	12,000
5	Tyre+Tube+Flap for Buses	6,000
6	Furniture items	8,80

- 8.2. The Bid Security will be in form of CDR in favor of the Vice Chancellor, Lahore College for Women University Lahore.
- 8.3. Cheque/ Cross Cheque/pay order/ Demand Draft /Banker's Cheque shall be summarily rejected.
- 8.4. The amount submitted as Bid Security shall be refunded to the unsuccessful bidders after the decision for the award of the said tender.
- 8.5. The Bid Security of Successful Bidder(s) may be return after provision of supply along with invoice/bill
- 8.6. If the Bid Security is found less than the required amount then the bid will be rejected irrespective of the rates and the stage of the bid process.
- 8.7. The Bid Security may be forfeited if a Bidder:

- a) Refuses to accept supply order/ work order
- b) Fails to furnish complete/partial supply of items.

9. BID PREPARATION AND SUBMISSION

- 9.1. The Tender shall be filed in / accompanied by the prescribed Forms, Annexes, Schedules, Drawings, Documents, Brochures, Literature, etc. which shall be completely filled in, stamped and signed by the Tenderer or his Authorized Representative. In case of copies, photocopies may be attested.
- 9.2. The Bids/Tenders should be submitted in two parts (1) **Technical Proposal** and (2) **Financial Proposal**. The Technical Proposal and Financial Proposal shall be submitted in separate covers.

9.3. TECHNICAL PROPOSAL

The Technical Proposal will enable the Purchase Committee to evaluate whether the bidder is technically competent and capable of executing the order and the specifications offered by the bidder meet the ones given in the Tender/Bid Documents. Only those bids which qualify in the technical stage will be eligible for the Financial Proposal opening. The Financial Proposals of bidders who failed in the Technical stage will not be opened.

- 9.4. The Technical Proposal form as given in the Bid/Tender Document shall be filled, signed and stamped in all pages. The Purchase Committee will not be responsible for the errors committed in the bids by the bidders.
- 9.5. The Technical Proposal should not strictly contain any Price/Cost indications as such otherwise the bids will be summarily rejected.
- 9.6. The Bidder should quote only one brand/model/make of each item.

9.7. Detail and Order of Documents to be furnished with the Technical proposal (Envelope A):

The documents attached with the Technical Bid must be signed and stamped by the Authorized Representative of the Bidder. The documents attached must be numbered and attached in the following order:

- 9.7.1. Covering letter (**Annexure-A**) duly signed and stamped by authorized representative.
- 9.7.2. Copy of Income Tax Registration Certificate
- 9.7.3. Copy of Sales Tax Registration Certificate.
- 9.7.4. Detailed specification of items.

At least two relevant Supply Orders/Contracts received for supply of **CHEMICALS, GLASSWARE & LAB EQUIPMENT, COMPUTER SYSTEM, PHOTOCOPIER, USB, WATER BROWSER/WATER TANK, TYRES for BUSES AND FURNITURE ITEMS**
Affidavit/Undertaking Covering Letter on Stamp Paper (**Annexure-D**).

FINANCIAL PROPOSAL

- 9.8. The Financial Proposal of the bidder shall also include the price break up of taxes/duties. All taxes/duties as applicable shall be responsibility of the bidders.
- 9.9. The cost quoted by the bidder shall be kept firm and unchanged for a period specified in the Bid/Tender Documents from the date of opening of the bids. The bidder shall

keep the price firm/unchanged during the period of Contract including during the period of extension of time if any.

9.10. The quoted price will be inclusive of all taxes, duties, levies, insurance, freight (transportation charges), etc.

9.11. The Bid is liable for rejection if Financial Proposal contains conditional offer.

9.12. Vendors must quote their rates on the company letter pad / tender form according to the specifications. Hand written quoted rates will not be accepted.

9.13. **Details to be furnished with Financial proposal (Envelope B)**

9.13.1. Financial Proposal Covering Letter (**Annexure E**).

9.13.2. Financial Proposal Form duly filled, signed and stamped by the Bidder (**Annexure F**).

9.13.3. Bid Security of amount (total amount of the relevant lot) mentioned in Clause No. 8 of the Tender Document.

9.14. Sealing the Bid

The Technical Proposal shall be placed in a separate cover (**Envelope-A**) and sealed appropriately. The Technical Proposal cover shall be marked as **“Technical Proposal for CHEMICALS, GLASSWARE & LAB EQUIPMENT, COMPUTER SYSTEM, PHOTOCOPIER, USB ,WATER BROWSER/WATER TANK, TYRES FOR BUSES AND FURNITURE ITEMS Bid Ref.: due on the “FROM” address and “TO” address shall be written without fail.**

9.15. The Financial Proposal (**Envelope-B**) shall contain rates of item quoted by the bidder. The Financial Proposal cover shall be marked as **“Financial Proposal for CHEMICALS, GLASSWARE & LAB EQUIPMENT, COMPUTER SYSTEM, PHOTOCOPIER, USB, WATER BROWSER/WATER TANK, TYRES FOR BUSES AND FURNITURE ITEMS Bid Ref.: due on: The “FROM” address and “TO” address shall be written without fail.**

9.16. **Out Cover:** The Technical Proposal cover (Envelope-A) and Financial Proposal cover (Envelope B) shall then be put in a single outer envelope and sealed. The outer cover shall be marked as **“Bid for CHEMICALS, GLASSWARE & LAB EQUIPMENT, COMPUTER SYSTEM, PHOTOCOPIER, USB, WATER BROWSER/WATER TANK, TYRES FOR BUSES AND FURNITURE ITEMS Bid Ref.: due on ____.** The “FROM” address and “TO” address shall be written without fail.

9.17. Mode of Submission of Bids

The Bid should be addressed to “Chairperson Purchase Committee, Lahore College for Women University, Jail Road, Lahore” and shall reach diary section of Lahore College for Women University, within given time period in tender notice, through valid Courier/Post.

9.17.1. The Bids received after Due Date and Time or by-hand or Unsealed or incomplete or submitted by Fax or Email will be summarily rejected.

10. MODIFICATION/WITHDRAWAL OF THE TENDER

10.1. The Bidder may, by written notice served on the Purchaser, modify or withdraw the Tender after submission of the Tender, prior to the deadline for submission of the Tender.

10.2. The Tender, withdrawn after the deadline for submission of the Tender and prior to the expiration of the period of the Tender validity, shall result in forfeiture of the Tender

Security.

11. BID OPENING

11.1. Technical Proposal Opening

The bid's outer cover and Technical Proposal cover will be opened by the Purchase Committee of Lahore College for Women University on the date and time as specified in the Tender Notice /Bid Data Sheet. The bids will be opened in the presence of the bidders who choose to be present. Only one representative for each bidder would be allowed to attend the Bid Opening.

11.2. Suppression of facts and misleading information

11.2.1. During the bid evaluation, if any suppression or misrepresentation of information is brought to the notice of the Purchase Committee, the Committee shall have the right to reject the Bid and if it happens so after selection of the Bidder, the Purchase Committee may terminate the Contract or award of the Contract or further processing of the Bid as the case may be and that will be without any compensation to the Bidder and the Bid Security/Performance Guarantee, as the case may be, shall be forfeited.

11.2.2. It is the Bidder's responsibility to prove the Bidder's requisite qualification, experience and capacity to undertake the project to the entire satisfaction of the Purchase Committee failing which the Bid may be rejected.

12. PRELIMINARY EXAMINATION

12.1. The Procuring Agency shall examine the bids to determine whether they are complete, whether any computational errors have been made, whether the required documents have been furnished and properly signed, and whether the bids are generally in order.

12.2. In the financial bids (at the time of opening the financial proposal) the arithmetical errors shall be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected. If the Bidders/Suppliers do not accept the correction of the errors, its bid shall be rejected. If there is a discrepancy between words and figures, the amount in words shall prevail.

13. DETERMINATION OF RESPONSIVENESS OF THE BID

13.1. The Purchaser shall determine the substantial responsiveness of the Tender to the Tender Document, prior to the Tender evaluation, on the basis of the contents of the Tender itself without recourse to extrinsic evidence. A substantially responsive Bid is one which:

13.1.1. meets a eligibility criteria for the Bidder / the Goods / the Services;

13.1.2. Meets all the mandatory requirements of the evaluation criteria.;

13.1.3. meets the Technical Specifications for the Goods / the Services;

13.1.4. meets the delivery period / point for the Goods / the Services;

13.1.5. is accompanied by the required Bid Security;

13.1.6. is otherwise complete and generally in order;

13.1.7. Conforms to all terms and conditions of the Tender Document, without material deviation or reservation

- 13.1.8.** which offers one Brand/Model/Make for each item (which does not contain any option)
- 13.2.** A material deviation or reservation is one which affects the scope, quality or performance of the Goods or limits the Purchaser's rights or the Bidder's obligations under the Contract.
- 13.3.** The Tender determined as not substantially responsive shall not subsequently be made responsive by the Tenderer by correction or withdrawal of the material deviation or reservation. However, the Purchaser may waive off any minor non-conformity or inconsistency or informality or irregularity in the Tender.

14. TECHNICAL EVALUATION CRITERIA

The Bidders who have duly complied with the Eligibility/Qualification and Evaluation will be eligible for further processing.

The Bids which do not conform to the Technical Specifications or Bid conditions or the Bids from the Bidders without adequate capabilities for supply and maintenance / warranty services will be rejected. The Eligible/Technically Qualified Bidders will be considered for further evaluation.

Under PPRA Rules # 31, Technical Bids will be evaluated on the basis of following criteria and Financial Bids of only those bidders will be opened who have fulfilled the criteria:

Evaluation Criteria	Requirement
Sales Tax Registration	Mandatory
Income Tax Registration	Mandatory
Conformance to the required specification of items given in Schedule of Requirement	Mandatory
At least two relevant Supply Orders/Contracts received in last two years CHEMICALS, GLASSWARE & LAB EQUIPMENT, COMPUTER SYSTEM, PHOTOCOPIER, USB, WATER BROWSER/WATER TANK, TYRES FOR BUSES AND FURNITURE ITEMS (copy of supply order/work order must be attached)	Mandatory
Affidavit /Bidder's Undertaking on stamp paper	Mandatory
ISO:9001 CERTIFIED AND ACCREDITED COMPANIES certificate	Mandatory

The bidder must provide Verifiable documentary proof against all the mandatory requirement and Evaluation Criteria along with the Technical Proposal and no document will be received or considered after opening of the Technical Proposal.

The Purchase Committee may ask for physical Demonstration of any of the items given in the Tender Document for confirmation of the specifications.

15. FINANCIAL PROPOSAL EVALUATION

- 15.1.** Technically qualified/successful bidder(s)/Tenderer(s) shall be called for opening of the Financial Proposal(s). The Financial Proposals will be opened in the presence of the Bidders at the time and venue indicated by the Purchaser accordingly. The technically Eligible/Successful Bidder(s)/Tenderer(s) or their authorized representatives against each Lot shall be allowed to take part in the Financial Proposal(s) opening against their relevant Lot(s).
- 15.2.** Financial Proposal evaluation will be conducted under the Punjab Procurement Rules, 2014. The Price evaluation will include all duties, taxes and expenses etc. In case of any exemption of duties and taxes made by the Government in favor of the Purchaser, the contractor shall be bound to adjust the same in the Financial Proposal.

16. REJECTION AND ACCEPTANCE OF THE TENDER/BID

- 16.1.** The Purchaser shall have the right, at his exclusive discretion, to increase / decrease the quantity of any or all item(s), under PPRA Rules 2014 without any change in unit prices or other terms and conditions, accept a Tender reject any or all tender(s), cancel / annul the Tendering process at any time prior to award of Contract, without assigning any reason or any obligation to inform the Tenderer of the grounds for the Purchaser's action, and without thereby incurring any liability to the Tenderer and the decision of the Purchaser shall be final.
- 16.2. The Tender / bid shall be rejected if:**
- 16.2.1.** It is substantially non-responsive; or
 - 16.2.2.** The bidder does not meet any of the mandatory criteria mentioned in Clause No. 15; or
 - 16.2.3.** It does not contain the documentary proof against any of the mandatory criteria mentioned in Clause No. 15; or
 - 16.2.4.** The bid is incomplete, partial, conditional, alternative, late; or
 - 16.2.5.** the bidder does not attach Bid Security in Shape of CDR; or
 - 16.2.6.** the bid security is not attached or it is less than the required amount; or
 - 16.2.7.** the Bidder submits more than one Bids against one Tender; or
 - 16.2.8.** the Bidder tries to influence the Tender evaluation / Contract award; or
 - 16.2.9.** the Bidder engages in corrupt or fraudulent practices in competing for the Contract award; or
 - 16.2.10.** there is any discrepancy between bidding documents and bidder's proposal i.e. any non-conformity or inconsistency or informality or irregularity in the submitted bid; or
 - 16.2.11.** The Bidder submits any financial conditions as part of its bid which are not in conformity with tender document.

17. CONTACTING THE PROCURING AGENCY

- 17.1.** No Bidder shall contact the Purchase Committee of Lahore College for Women University on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded.
- 17.2.** Any effort by a Bidder to influence the Procuring Agency in its decisions on bid evaluation, bid comparison, or Contract Award will disqualify the bidder and rejection of the bid. Canvassing by any Bidder at any stage of the Tender evaluation is strictly prohibited.

18. ANNOUNCEMENT OF EVALUATION REPORT

The Procuring Agency shall announce the results of bid evaluation in the form of a report giving justification for acceptance or rejection of bids at least ten days prior to the award of Contract. The report shall be made available on PPRA website and all the bidders shall be informed of this.

19. AWARD OF CONTRACT

- 19.1.** The Tender will be awarded to the Lowest Evaluated Bidder who has been declared Technically Qualified.

20. REFUND OF BID SECURITY (BS)

The BS of the unsuccessful Bidder will be refunded on the written request of the Bidder. The Bid Security of the successful bidder shall be released after successfully completion of delivery.

21. ISSUANCE OF SUPPLY ORDER OR SIGNING THE CONTRACT

- 21.1. The Purchase Committee shall issue Supply Order or sign a Contract with the Successful bidder who has submitted the Performance Guarantee.
- 21.2. The Successful Bidder will provide the stamp paper of 0.25% of total order value for issuance of Supply Order or Signing the Contract.

22. REDRESSAL OF GRIEVANCES BY THE PROCURING AGENCY

- 22.1. Any bidder feeling aggrieved by any act of the procuring agency after the submission of his bid may lodge a written complaint concerning his grievances not later than 10 days after the announcement of the bid evaluation report.
- 22.2. The committee shall investigate and decide upon the complaint within fifteen days of the receipt of the complaint.
- 22.3. Mere fact of lodging of a complaint shall not warrant suspension of the procurement process.
- 22.4. Any bidder not satisfied with the decision of the committee of the procuring agency may lodge an appeal in the relevant court of jurisdiction.

GENERAL CONDITIONS OF CONTRACT / SUPPLY ORDER

23. DELIVERY OF ITEMS

23.1. Delivery Period will be counted after issuance of Supply Order with details given below:

23.2.

Name of items	No. of days
Chemicals, Glassware and Lab Equipment	30
Photocopier Machine	
Computer system	
USB	
Water Browser (4000 liters) as per specification	
Tyre+Tube+Flap for Buses	
Furniture items	

- 23.3. The Supplier will be responsible for **delivery and installation** of Items at LCWU Lahore as mentioned.
- 23.4. The supplier will bear all costs associated with the preparation, delivery and installation of the Items and the Purchaser will in no case be responsible or liable for those costs. The supplier will make such arrangements to ensure safe delivery of goods. Any damage sustained during transportation / delivery will be rectified by the supplier at his cost.

24. LIQUIDATED DAMAGES

24.1. When the supplier fails to deliver or install the goods or both within the time period specified in the contract, the Purchase Committee may, without prejudice to any other remedy it may have under the contract, deduct from the contract price, as liquidated damages, a sum Rs.500/- per day of the delayed goods per day of delay, penalty may be wave off by the competent authority.

24.2. The Successful Bidder will be responsible to provide the delivery, delivery Challan and Bill with Sales Tax Invoice within the delivery period in order to avoid Late Delivery Charges.

25. INSPECTION AND TESTS

25.1. The Inspection Committee of LCWU shall inspect and test the Goods supplied, the Services provided, under the Contract/Supply Order, to verify their conformity to the Technical Specifications.

25.2. Inspection Committee may verify the authenticity of items from Supplier.

25.3. After the inspection or test if the Purchase Committee is of the opinion that items do not conform to the specification and the criteria mentioned above, the Inspection Committee may reject them, and the supplier shall either replace the rejected goods or make all alterations necessary to meet the requirements of the specifications free of cost to LCWU.

26. RELEASE OF PERFORMANCE SECURITY

The performance security / Bank Guarantee 10% will be refunded to the supplier's after completion of warranty period one year Claim for 10% security refund Performa is attached with tender document.

27. CONTRACT AMENDMENT

27.1. The Purchaser may, at any time, by written notice served on the Contractor, alter, amend, omit, increase, decrease or otherwise change the nature, quality, quantity and scope, of all / any of the Goods / the Services / the Works, in whole or in part.

27.2. No variation in or modification in the Contract shall be made, except by written amendment signed by both the Purchaser and the Contractor.

28. TERMINATION FOR DEFAULT

The Purchase Committee of Lahore College for Women University may, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the tenderer, terminate this Contract in whole or in part if:

28.1. The bidder fails to provide services within the period(s) specified in the Contract, or within any extension thereof granted by the Procuring entity.

28.2. the successful bidder fails to deliver goods and services as per its technical specifications offered in the bid

28.3. The successful bidder fails to perform any other obligation(s) under the Contract.

28.4. The bidder, in the judgment of the Purchase Committee has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

29. BLACKLISTING

If the Contractor fails / delays in performance of any of the obligations, under the Contract / Letter of Acceptance, violates any of the provisions of the Contract / Letter of Acceptance, commits breach of any of the terms and conditions of the Contract / Letter of Acceptance or found to have engaged in corrupt or fraudulent practices in competing for the award of contract / Letter of Acceptance or during the execution of the contract / Letter of Acceptance, the Purchaser may without prejudice to any other right of action / remedy it may have, blacklist the

Contractor, either indefinitely or for a stated period, for future tenders in public sector, as per mechanism provided in Punjab Procurement Rules, 2014.

30. Force Majeure

Majeure means an act of nature or an event beyond the control of the Supplier and not involving the Supplier's fault or negligence directly or indirectly purporting to misplanning, mismanagement and/or lack of foresight to handle the situation. Such events may include but are not restricted to acts of the Procuring Agency in its sovereign capacity, wars or revolutions, fires, floods, earthquakes, strikes, epidemics, quarantine restrictions and freight embargoes. If a Force Majeure situation arises, the Supplier shall promptly notify the Procuring Agency in writing with sufficient and valid evidence of such condition and the cause thereof. The Committee constituted for Redressal of grievances, shall examine the pros and cons of the case and all reasonable alternative means for completion of purchase order under the Contract and shall submit its recommendations to the competent authority. However, unless otherwise directed by the Procuring Agency in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek reasonable alternative means for performance not prevented by the Force Majeure event.

31. TERMINATION FOR INSOLVENCY

The Procuring Agency may at any time terminate the Contract by giving written notice of 30 days' time to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination shall be without compensation to the Supplier, provided that such termination shall not prejudice or affect any right of action or remedy which has accrued or shall accrue thereafter to the Parties.

32. FORFEITURE OF PERFORMANCE SECURITY

32.1. If the Contractor fails / delays in performance of any of the obligations, under the Contract / violates any of the provisions of the Contract / commits breach of any of the terms and conditions of the Contract the Purchaser may, without prejudice to any other right of action / remedy it may have, forfeit Performance Security of the Contractor.

32.2. Failure to supply required items/services within the specified time period will invoke penalty as specified in this document. In addition to that, Performance Security amount will be forfeited and the company will not be allowed to participate in future tenders as well.

33. PAYMENT

33.1. 100% payment will be made by Lahore College for Women University to the Successful Bidder after delivery and installation of goods and on receipt of the following documents:

- i. Bill
- ii. Delivery Challan
- iii. General Sales Tax Invoice
- iv. Inspection/Completion report
- v. Bill of Entry of imported items

34. Warranty

- 34.1.** Warranty of items shall be as per required in the Schedule of Requirement (Clause No. 39)
- 34.2.** The Supplier shall confirm that the goods supplied under this contract are new and unused. The Supplier shall further warrant that all goods supplied under this contract shall have no defect arising from design materials or workmanship or from any act or omission of the supplier that may arise under the normal use of the supplied goods in the conditions prevailing in the University.
- 34.3.** During the warranty period the Successful Bidder will provide comprehensive warranty of the items. The Purchase Committee shall notify the supplier in writing of any claim arising under the warranty. Upon receipt of such notice, the supplier shall repair or replace the defective goods or parts within **ten days**, inclusive of, where applicable, the cost of inland delivery of the repaired or replaced goods or parts from the port of entry to the final destination and their installation.

SPECIFICATIONS AND SCHEDULE OF REQUIREMENT
DEPARTMENT CHEMISTRY
LIST OF CHEMICALS

Sr.#	Chemical Name	Company Name (ISO Certified)	Quantity Required
MERCK OR EQUIVALENT US OR EQUIVALENT ONLY ISO:9001 CERTIFIED AND ACCREDITED COMPANIES			
1.	Anthranilic Acid (2 amino benzoic acid)	Merck / RDH / sigma /BDH or Equivalent	Smallest packing
2.	Furfuraldehyde	Merck / RDH / sigma /BDH or Equivalent	01 lit
3.	Hydrazine Hydrate	Merck / RDH / sigma /BDH or Equivalent	01 lit
4.	Sodium Molybdate	Merck / RDH / sigma /BDH or Equivalent	Smallest packing
5.	Hydrochloric Acid	Merck / RDH / sigma /BDH or Equivalent	10lit
6.	Diethyl ether	Merck / RDH / sigma /BDH or Equivalent	05lit
7.	Silver nitrate	Merck / RDH / sigma /BDH or Equivalent	500g
8.	Ethyl acetoacetate	Merck / RDH / sigma /BDH or Equivalent	2.5Lit
9.	Methanol (Analytical grade)	Merck / RDH / sigma /BDH or Equivalent	15Lit
10.	Ammonia solution	Merck / RDH / sigma /BDH or Equivalent	5lit
11.	Salicylaldehyde	Merck / RDH / sigma /BDH or Equivalent	100ml
12.	Ethanol (Analytical grade)	Merck / RDH / sigma /BDH or Equivalent	10lit
13.	Ethanol (Commercial Grade)	Commercial Grade	20Lit
14.	1-Butanol	Merck / RDH / sigma /BDH or Equivalent	5Lit
15.	n- Hexane	Merck / RDH / sigma /BDH or Equivalent	7.5lit
16.	Acetone	Merck / RDH / sigma /BDH or Equivalent	10lit
17.	Silica gel for thin layer chromatography	Merck / RDH / sigma /BDH or Equivalent	500g
18.	Dichloromethane	Merck / RDH / sigma /BDH or Equivalent	05Lit
19.	Sulfuric Acid	Merck / RDH / sigma /BDH or Equivalent	05Lit

Sr.#	Chemical Name	Company Name (ISO Certified)	Quantity Required
MERCK OR EQUIVALENT US OR EQUIVALENT ONLY ISO:9001 CERTIFIED AND ACCREDITED COMPANIES			
20.	Potassium Iodide	Merck / RDH / sigma /BDH or Equivalent	02Kg
21.	Di methyl sulfoxide	Merck / RDH / sigma /BDH or Equivalent	01Lit
22.	Sodium Hydroxide	Merck / RDH / sigma /BDH or Equivalent	03Kg
23.	Sprit	Commercial	05Lit
24.	Chloroform	Merck / RDH / sigma /BDH or Equivalent	05Lit
25.	Ammonium Hepta Molybedate	Merck / RDH / sigma /BDH or Equivalent	500g
26.	Oleic acid	Merck / RDH / sigma /BDH or Equivalent	01g
27.	Tris trimethylsilyl phosphine	Merck / RDH / sigma /BDH or Equivalent	01g
28.	Choline chloride	Merck / RDH / sigma /BDH or Equivalent	05g
29.	Tetraethyl orthosilicate	Merck / RDH / sigma /BDH or Equivalent	500ml
30.	Phosphate buffer	Merck / RDH / sigma /BDH or Equivalent	01Lit
31.	Melamine	Merck / RDH / sigma /BDH or Equivalent	01Kg
32.	Calcium chloride hexahydrate	Merck / RDH / sigma /BDH or Equivalent	01Kg
33.	Periodic acid	Merck / RDH / sigma /BDH or Equivalent	01Lit
34.	Pyrolidine	Merck / RDH / sigma /BDH or Equivalent	250ml
35.	Terephthaldehyde	Merck / RDH / sigma /BDH or Equivalent	25g
36.	Glutaraldehyde	Merck / RDH / sigma /BDH or Equivalent	500ml
37.	Cellulose	Merck / RDH / sigma /BDH or Equivalent	500g
38.	Sodium benzoate HPLC grade	Merck / RDH / sigma /BDH or Equivalent	500g
39.	Butylhydroquinone (TBHQ, tertiary butylhydroquinone) HPLC grade	Merck / RDH / sigma /BDH or Equivalent	01Kg
40.	butylated hydroxyanisole (BHA), and butylated hydroxytoluene (BHT) HPLC grade	Merck / RDH / sigma /BDH or Equivalent	01Kg
41.	1-Ammonium thiocyanate	Merck / RDH / sigma /BDH or Equivalent	500 g
42.	2- Sodium thiosulphate	Merck / RDH / sigma /BDH or Equivalent	500g
43.	3-Ethylene diamine tetra acetic acid	Merck / RDH / sigma /BDH or Equivalent	1kg
44.	Hydrazine hydrate	Merck / RDH / sigma /BDH or Equivalent	500g
45.	Copper(II)acetate monohydrat	Merck / RDH / sigma /BDH or Equivalent	500g
46.	Glycine	Merck / RDH / sigma /BDH or Equivalent	100g
47.	2- Triphenyl phosphine	Merck / RDH / sigma /BDH or Equivalent	100 g
48.	1-nitroso-2 naphthol	Merck / RDH / sigma /BDH or Equivalent	100g
49.	Bis-(N, N' disalicylidine ethylene diamine)	Merck / RDH / sigma /BDH or Equivalent	100g
50.	N,N'-disalicylidene ethylenediamine	Merck / RDH / sigma /BDH or Equivalent	100g
51.	Tetrabutyl ammonium bromide	Merck / RDH / sigma /BDH or Equivalent	100g
52.	Ethylene diamine	Merck / RDH / sigma /BDH or Equivalent	100ml
53.	Iodine	Merck / RDH / sigma /BDH	250 g

Sr.#	Chemical Name	Company Name (ISO Certified)	Quantity Required
MERCK OR EQUIVALENT US OR EQUIVALENT ONLY ISO:9001 CERTIFIED AND ACCREDITED COMPANIES			
		or Equivalent	
54.	Cetyltrimethylammoniumbromide	Merck / RDH / sigma /BDH or Equivalent	500 g
55.	Oxine	Merck / RDH / sigma /BDH or Equivalent	100g
56.	Vanadium IV Oxide	Merck / RDH / sigma /BDH or Equivalent	500 g
57.	Acetonitrile	Merck / RDH / sigma /BDH or Equivalent	05 L
58.	Di-isopropylamine	Merck / RDH / sigma /BDH or Equivalent	500 mL
59.	Ammonium persulphate	Merck / RDH / sigma /BDH or Equivalent	250 g
60.	Silver Bromide	Merck / RDH / sigma /BDH or Equivalent	100g
61.	Molybdenum chloride	Merck / RDH / sigma /BDH or Equivalent	250 g
62.	Phenolphthalein	Merck / RDH / sigma /BDH or Equivalent	100g
63.	Sodium Thiosulfate	Merck / RDH / sigma /BDH or Equivalent	01Kg
64.	Sodium dodecyl Sulfate	Merck / RDH / sigma /BDH or Equivalent	100g
65.	Sodium acetate	Merck / RDH / sigma /BDH or Equivalent	01Kg
66.	Buffer(pH4,7,10)	Merck / RDH / sigma /BDH or Equivalent	01Lit each
67.	sucrose	Merck / RDH / sigma /BDH or Equivalent	01kg
68.	Formic acid	Merck / RDH / sigma /BDH or Equivalent	2.5Lit
69.	Potassium bromide	Merck / RDH / sigma /BDH or Equivalent	100g
70.	Sodium dodecyl benzene sulfonate	Merck / RDH / sigma /BDH or Equivalent	500g
71.	Starch	Merck / RDH / sigma /BDH or Equivalent	01Kg
72.	Di Sodium hydrogen phosphate	Merck / RDH / sigma /BDH or Equivalent	500g
73.	Sodium dihydrogen phosphate	Merck / RDH / sigma /BDH or Equivalent	500g
74.	Polyvinyl Alcohol	Merck / RDH / sigma /BDH or Equivalent	500g
75.	Bromine Pure	Merck / RDH / sigma /BDH or Equivalent	01 Lit
76.	5-bromosalicylaldehyde	Merck / RDH / sigma /BDH or Equivalent	100g
77.	4-hydroxybenzaldehyde	Merck / RDH / sigma /BDH or Equivalent	250g
78.	3-chlorobenzaldehyde	Merck / RDH / sigma /BDH or Equivalent	100g
79.	p-nitrobenzaldehyde	Merck / RDH / sigma /BDH or Equivalent	25g
80.	Ethylenediamine	Merck / RDH / sigma /BDH or Equivalent	1litre
81.	methylacetoacetate	Merck / RDH / sigma /BDH or Equivalent	1 litre
82.	Thiourea	Merck / RDH / sigma /BDH or Equivalent	1 kg
83.	Semicarbazide	Merck / RDH / sigma /BDH or Equivalent	500 g
84.	Thiosemicarbazide	Merck / RDH / sigma /BDH or Equivalent	500g
85.	Acetanalide	Merck / RDH / sigma /BDH or Equivalent	500g
86.	Propylbromide	Merck / RDH / sigma /BDH or Equivalent	250ml

Sr.#	Chemical Name	Company Name (ISO Certified)	Quantity Required
MERCK OR EQUIVALENT US OR EQUIVALENT ONLY ISO:9001 CERTIFIED AND ACCREDITED COMPANIES			
87.	Succinic Acid	Merck / RDH / sigma /BDH or Equivalent	1 kg
88.	Malonic Acid	Merck / RDH / sigma /BDH or Equivalent	100g
89.	Fumaric Acid	Merck / RDH / sigma /BDH or Equivalent	1kg
90.	4-aminobenzoic acid	Merck / RDH / sigma /BDH or Equivalent	250g
91.	1,4-Phenylenediamine	Merck / RDH / sigma /BDH or Equivalent	100g
92.	1,2-Phenylenediamine	Merck / RDH / sigma /BDH or Equivalent	50g
93.	benzoylchloride	Merck / RDH / sigma /BDH or Equivalent	1 L
94.	Benzylbromide	Merck / RDH / sigma /BDH or Equivalent	25g
95.	3-aminophenol	Merck / RDH / sigma /BDH or Equivalent	1kg
96.	Acetyl chloride	Merck / RDH / sigma /BDH or Equivalent	100ml
97.	Selenium dioxide	Merck / RDH / sigma /BDH or Equivalent	50g
98.	Bromoacetate	Merck / RDH / sigma /BDH or Equivalent	100g
99.	Polyphosphoric acid	Merck / RDH / sigma /BDH or Equivalent	1 kg
100.	Anthranilic acid	Merck / RDH / sigma /BDH or Equivalent	500g
101.	Phosphorus Pentaoxide	Merck / RDH / sigma /BDH or Equivalent	500g
102.	2-aminobenzenethiol	Merck / RDH / sigma /BDH or Equivalent	25ml
103.	2,3-Diaminopyridine	Merck / RDH / sigma /BDH or Equivalent	5 g
104.	Palmitolic acid	Merck / RDH / sigma /BDH or Equivalent	100mg
105.	100 Bp DNA Ladder	Merck / RDH / sigma /BDH or Equivalent	50ug
106.	Meta Phosphoric Acid	Merck / RDH / sigma /BDH or Equivalent	100g
107.	Bovine Serum Albumin	Merck / RDH / sigma /BDH or Equivalent	01g
108.	Sodium Nitroprusside	Merck / RDH / sigma /BDH or Equivalent	200g
109.	Sulfanilamide	Merck / RDH / sigma /BDH or Equivalent	100g
110.	DTNB (5,5'-Dithiobis(2- nitrobenzoic acid)	Merck / RDH / sigma /BDH or Equivalent	05g
111.	ABTS(2,2'-azino-bis(3-ethylbenthiiazoline-6-sulphonic acid) sodium salt	Merck / RDH / sigma /BDH or Equivalent	01g
112.	Phenol Red indicator	Merck / RDH / sigma /BDH or Equivalent	05g
113.	Lithium Sulfate	Merck / RDH / sigma /BDH or Equivalent	2x10g
114.	DPPH(2,2-Diphenyl-1-picrylhydrazyl)	Merck / RDH / sigma /BDH or Equivalent	01g

List of Glass wares Chemistry Department

Sr. #	Name of items	Quantity Required
1.	Beaker 50 ml , 100ml , 250ml	100 each
2.	Burette stand	25No.
3.	Burette with rubber 50ml	50No.
4.	Capillary tube thin	05pkts

Sr. #	Name of items	Quantity Required
5.	Centrifuge tubes plastic 15ml	50No.
6.	China dish of different sizes	50No.
7.	Conical flask 250ml	100No.
8.	Dropper	50No.
9.	Filter sheet packet	10 sheet packet
10.	Funnels 3'' dia (Glass)	150No.
11.	Glass vials (10ml-15ml)	500No.
12.	Iron clamp	05No.
13.	Measuring cylinder 100ml,50ml	50No. each
14.	Measuring flask 50ml	50No.
15.	PH- test paper	100pkts
16.	Quartz cell Spectrophotometer UV/VIS 0.5 ml	03 pairs
17.	Spatulas Variables seizes	50No.
18.	Plastic Pipette filler, Sucker	50No.
19.	Teflon covered magnets	100No.
20.	TLC cards	03 packets
21.	Visco meter with pinch cork	10No.
22.	Water bath(copper)	10No.
23.	Sand bath(Copper)	05No.
24.	Thimbles 3x 100mm	01 packet
25.	What man filter paper 15'' dia	05 packets
26.	Fusion tubes	05 packets
27.	Surgical gloves	02pkts
28.	Mask	01pkts
29.	China tiles	05No.
30.	Rubber cork of different sizes	50No.
31.	Cutter	05No.
32.	Cotton	05roll
33.	Glass rod	200No.
34.	Aluminum foil (37.5 square feet)	05boxes
35.	Paper tape	10 No.
36.	Pestle and mortar small size	03No.
37.		10No.
	Quick fit round bottom flask 100ml size 24/29 3-neck	10No.
	Quick fit round bottom flask 250ml size 24/29 3-neck	10No.
	Quick fit round bottom 2 -neck flask 100ml size 24/29	10No.
	Quick fit round bottom 2-neck flask 250ml size 24/29	
38.	Seperatory funnels 250ml	15No.
39.	Chromatographic paper	01 pack
40.	Pipes for Stalgometer, viscometer and for burettes	25 meter
41.	Pinch cork for Stalgometer, viscometer and for burettes	25 No.
42.	Pipette 10ml and 01ml	50No. each
43.	Measuring flask 100ml	25No. each
44.	Measuring Flask 500ml and 1000ml	10No. each
45.	Teflon lined hydrothermal flask stainless steel	02No.

List of Equipment's / Plant & Machinery for Chemistry Department

Sr. #	Name of items	Quantity Required
1.	Melting point apparatus (Digital) Temperature range 350 °C Technical Specification 230V Housing DxHxW14x41x12cm	02 No.

	GallenKamp UK/Germany or Equivalent	
2.	Hot plate Temp. Range 25-250 °C Speed range 100-1500rpm Plate material: ceramic ARE VELP Scientifica /IRMECO GmbH Germany/USA or Equivalent	05 No.
3.	Heating mental 500ml	02 No.
4.	Heating mental 1000ml	02 No
5.	Solid phase extraction unit china made	01 Set

Zoology Department
List of Lab Equipment

Sr. No.	Name of Item with Specification	Qty.
01	<p>Mini Centrifuge Machine: Maximum Capacity: 24x1.5/2.0ml, Maximum Speed: 14000RPM. Speed Increment: 100RPM, Timer Range: 1Sec to 99Min. Shortest Acceleration Time:, 14Sec. Over All Dimensions: 176x212x226mm. Display: LCD. Noise Level: <60dB(A). Power Supply: 220V/50-60Hz. Make: UK/USA/Germany/ other than China or Equivalent</p>	01
02	<p>Refrigerated Centrifuge Machine: Maximum Capacity:8x15MI and 6x50MI. Temperature Range: -20 °C to 40 °C. Maximum Speed: 15000RPM. Speed Accuracy: ±20RPM. Timer Range: 1Sec to 99Min. Shortest Acceleration Time: 25Sec. Shortest Deceleration Time: 25Sec. Over All Dimensions: 338x580x324mm. Display: LCD. Noise Level: <56dB(A). Power Supply: 220V/50-60Hz Make: UK/USA/Germany / other than China or Equivalent</p>	01
03	<p>Laboratory pH Meter: LCD Display: Three and half digit display. Measurement Range: PH: 0-14, mV: -415 ~ 415mV. Resolution Ratio: 0.01Ph, 1mV. pH measurement error: ±0.05PH. mV Value measurement error: 0.1% FS. Temperature Accuracy: ± 1°C. Temperature Fluctuation: ± 1°C. Temperature Uniformity: ± 1°C. Make: UK/USA/Germany / other than China or Equivalent</p>	01
04	<p>Midi/Mini Gel Electrophoreses Apparatus: Compact 100 x 100mm Vertical Mini Gel Unit. Complete with tank with integral Gel running Module, Two Plain glass plates with 1mm thick bonded spacer, two Notched Glass plates and One 12 well, 1mm Thick comb, Complete with 2 set of leads Make: UK/USA/Germany / other than China or Equivalent</p>	01
05	<p>PCR Machine: Thermal Cycler Peltier-based Thermal Cycler High quality & durable premium peltier parts, extending life time of the machine Large 5.7" color high resolution display with step-based graphic representation of protocols, accelerating the programming procedure Built-in USB port, enabling unlimited protocol transactions Outstanding block uniformity, producing best possible result Fast ramping rate, saving experiment time Heating and Cooling Technology: Thermal Cycler Peltier-based Block Capacity: 96wells x 0.2ml+77wells x 0.5ml. Sample Capacity: 0.2mlPCR Tube LCD Display: 5.7inch diagonal illumination color display Block Temperature Range: 0-100 Deg. Max. Heating Rate: Upto 3Deg/Sec Max. Cooling Rate: Upto 2Deg/Sec. Block Uniformity: ≤±0.2Deg (30Sec after reach temperature point set). Block Uniformity: ≤±0.2Deg (35Deg to 100Deg) Display Resolution: 0.1Deg. Mode of Temperature Control: Sim-tube and</p>	01

	Block Mode Make: UK/USA/Germany/ other than China or Equivalent	
06	<p>Shaking Incubator Temperature Controlled Features: Soft Shaking Mode, Stable & Reliable Operation. Audio & Visual Alarm for over-temperature, PID Controller. Power off recovery function. Efficient Drive Motor and cooling controller, low energy consumption. Transparent Window and built-in lighting design convenient for observation samples. Technical Specifications: Internal Size (WxDxH): 600x440x650mm. External Size (WxDxH): 700x600x1250mm. Control: PID. Display: LCD. Circulation Mode: Forced Convection. Shaking Mode: Rotary Shaking. Drive Mode: Uni-shaft Drive. Rotating Speed: 40~300rpm. Rotating Accuracy: ± 1 rpm. Vibration Range: $\phi 25$mm. Standard Capacity: 500ml x 12, 250ml x 15. Max. Capacity: 1000 ml x 12 or 500ml x 24 or 250ml x 30 or 100ml x48 or 50ml x 48. Shaking Plate Size: 500 x 350mm. Heating Consumption: 500W. Timing Range: 0 ~ 500 hours. Temp Range: RT + 5 °C ~ 60 °C. Temp Accuracy: ± 0.1 °C. Temp. Uniformity: ± 1 °C. Internal Material: Mirror Stainless Steel. External Material: Cold-rolled steel with anti-bacteria powder coating. Safety Function: Audio & Visual Alarm for over temp. Alarm for over-speed, Independent over-temperature protector, Shut-down protection for door opening, leakage or over-current protection. Consumption: 600W. Power Supply: AC 110/220 V, $\pm 10\%$, 50/60 HZ. Make: UK/USA/Germany/Japan / other than China or Equivalent</p>	01
07	<p>Advance Research Stereomicroscope Camera Fitted: Total Magnification (Using 10x Eyepiece) : 3.15x-315x (Depending on Objective Used) Zooming Body: Optical System: Parallel-Optics (Zooming Type) Zoom Range: 0.63-15.75x. Zoom Range: 25:1 Zoom: Motorized. Aperture Diaphragm: Zooming Body Built-in Controller: Remote Controller Objectives NA / Working Distance (mm): 0.5x : 0.078 / 71, 1x : 0.156 / 60 1.6x : 0.25 / 30, 2x : 0.312 / 20 Tubes: Tilting Trinocular Tube Bases / Stand: LED Diascopic Base Stand Illuminators: Diascopic Illuminator Digital camera System: Image Sensor: 1/1.8 inch Color CMOS image sensor. Size: 6.91 x 4.92 mm Recordable Pixels: All pixels: 2880 x 2048, 2 vertical and 2 horizontal pixels average: 1440 x 1024 Lens Mount: C-Mount Live Display Mode* (Maximum fps): All pixels (2880 x 2048): 15 fps, 2 vertical and 2 horizontal pixels average (1440 x 1024): 30 fps Exposure Time: 100μ sec to 30 sec Photometry Mode: Average photometry: Average intensity within the photometry area, Peak photometry: Maximum intensity within the photometry area Exposure Control: One-time automatic exposure: Exposure time is adjusted automatically for one-time within the optimum range for the camera Continuous automatic exposure: Automatic exposure adjustment is performed continuously to keep the exposure within the camera. Manual exposure: Exposure time and gain settings are made manually Exposure Correction: Average metering: ± 1EV, Step: 1/6EV. Peak hold</p>	01

	<p>metering: -1EV to ±0EV Interface: USB3.0 (connect with PC, DS-L4) x1, External trigger x1 Power Supply: AC100-240V 50Hz/60Hz Power Consumption: 4.8W Dimensions: 100 (W) x 66 (D) x 65 (H) mm Operating Environment: 0-40°C, 60% RH max. (without condensation) Make: Ziess/Lieca/Nikon/Olympus / other than China or Equivalent</p>	
08	<p>Inverted Microscope Camera Fitted: Optical System: Infinity Optical System Observation Method: Brightfield, Apodized Phase Contrast*1, Phase Contrast, Emboss Contrast*2 Diascopic illumination: High luminescent white LED illuminator (Eco-illumination), Built-in Fly eye lens Eyepiece (F.O.V.): 10X (22) Focusing: Via nosepiece up/down movement, Stroke (manual): Up 7 mm down 1.5 mm. Coarse stroke: 37.7 mm per rotation, Fine stroke: 0.2 mm per rotation, Coarse motion torque adjustable Nosepiece: Quintuple nosepiece Condenser: ELWD Condenser (NA 0.3, W.D. 75 mm) Stage: Mechanical stage set Holder: Petridish Holder 35 mm, 100 mm. Dimensions: 236 (W) ×548 (D) ×471 (H) mm Power Consumption: 15W Digital camera System: Image Sensor: 1/1.8 inch Color CMOS image sensor. Size: 6.91 x 4.92 mm Recordable Pixels: All pixels: 2880 x 2048, 2 vertical and 2 horizontal pixels average: 1440 x 1024 Lens Mount: C-Mount Live Display Mode * (Maximum fps): All pixels (2880 x 2048): 15 fps, 2 vertical and 2 horizontal pixels average (1440 x 1024): 30 fps Exposure Time: 100µ sec to 30 sec Photometry Mode: Average photometry: Average intensity within the photometry area, Peak photometry: Maximum intensity within the photometry area Exposure Control: One-time automatic exposure: Exposure time is adjusted automatically for one-time within the optimum range for the camera Continuous automatic exposure: Automatic exposure adjustment is performed continuously to keep the exposure within the camera. Manual exposure: Exposure time and gain settings are made manually Exposure Correction: Average metering: ±1EV, Step: 1/6EV. Peak hold metering: -1EV to ±0EV Interface: USB3.0 (connect with PC, DS-L4) x1, External trigger x1 Power Supply: AC100-240V 50Hz/60Hz Power Consumption: 4.8W Dimensions: 100 (W) x 66 (D) x 65 (H) mm Operating Environment: 0-40°C, 60% RH max. (without condensation) Make: Ziess/Lieca/Nikon/Olympus / other than China or Equivalent</p>	01

List of Chemical & Scientific kits BS & MS; for Zoology Department

Sr No.	Name of Item	Quantity
1.	2-Mercaptoethanol	2.5L
2.	Absolute Alcohol (Merck/BDH/Sigma/Oxoid)	20Lit
3.	Acetic Acid	5L
4.	Acetone	5L
5.	Adrenaline (Merck/BDH/Sigma/Oxoid)	100vials
6.	Agarose(BDH, Merck, Sigma)	200g
7.	Alloxan Monohydrate	25g
8.	Ascorbic Acid	25g

9.	Boric Acid	1kg
10.	Bromophenol Blue	25g
11.	Canada balsam (BDH, Merck, Sigma)	2000ml
12.	Catalase Colorimetric Assay Kit	100rxn
13.	cDNA Sythesis Kit	03(300T)
14.	Cellular ROS Assay Kit	100rxn
15.	Chemistry Kit ALP	01(300T)
16.	Chemistry Kit ALT	01(300T)
17.	Chemistry Kit AST	01(300T)
18.	Chemistry Kit Bilirubin	01(300T)
19.	Chemistry Kit Creatinine	03(200T)
20.	Chemistry Kit HDL	03(200T)
21.	Chemistry Kit Total Protein	03(200T)
22.	Chemistry Kit Total-Cholesterol	03(200T)
23.	Chemistry Kit Triglyceride	03(200T)
24.	Chemistry Kit Urea	01(200T)
25.	Chloroform (Commercial Grade)	5Lit
26.	Chloroform Analytical grade	2.5L
27.	Chocolate Agar	250g
28.	Clove oil (BDH, Merck, Sigma)	1000ml
29.	Coomassie Brilliant Blue R250	25g
30.	Cortisol (Eliza kit)96Well	01
31.	Culture Media RPMI-1640	500ml
32.	DEPC Treated Water	1000ml
33.	DMSO	2.5L
34.	DNA Extraction Kit	01
35.	DNA Ladder 10kb (Germany/USA/UK/China)	1000ug
36.	DNA Ladder 1kb 10kb (Germany/USA/UK/China)	1000ug
37.	DNA Ladder 50bp	2000ug
38.	DNA Ladder 50bp(Germany/USA/China)	1000ug
39.	DNA Loading Dye 6x	1000ml
40.	dNTPs (Germany/USA/UK/China)	3set
41.	DPPH	10gm
42.	Electrolytes Kit Calcium	01(100T)
43.	Electrolytes Kit Phosphorus	01(100T)
44.	Electrolytes Kit Potassium	01(100T)
45.	Electrolytes Kit Sodium	01(100T)
46.	ELISA Kit Apolipo Protein 96well	01
47.	ELISA Kit Estrogen 96well	01
48.	ELISA Kit Insulin96well	01
49.	ELISA Kit Progesterone 96well	01
50.	ELISA Kit Toxoplasma 96well	01
51.	ELISA Kit Vitamin D 96well	01
52.	Ethanol (Commercial Grade)	10Lit
53.	Ethanol HPLC grade (Merck/BDH/Sigma/Oxoid)	10lit
54.	Ethidium bromide	1g
55.	Fetal Bovine Serum	500ml
56.	Ficol Dye	20g
57.	Formalin	5L
58.	Glucose	1kg
59.	Glycerol	2.5L
60.	Glycine (Sigma / Merck)	25gm
61.	HCl (Merk /BDH/RDH)	5Lit.
62.	Hematoxylin Stain	25g
63.	Hydrogen per Oxide	500ml
64.	Isopropanol	2.5L
65.	Kovac's reagent(Merck/BDH/Sigma/Oxoid)	1 small bottle
66.	LB Agar	500g
67.	LB Broth	500g

68.	L-Glutamine	25g
69.	Master Mix(Taq Polymerase, dNTPs , reaction buffer, MgCl ₂)	5ml
70.	McConkey Agar	500g
71.	Methanol	5L
72.	M-MuLV Reverse Transcriptase	02No.
73.	Mueller-Hinton Agar media	500g
74.	Mueller-Hinton Broth media	500gm
75.	NaCl	1kg
76.	NaOH	1kg
77.	Nitric Acid (HNO ₃)	5L
78.	Nutrient Agar	1000g
79.	Orange G Dye	10g
80.	Oxidase Reagent	100g
81.	Pencillin Streptomycin Solution	100ml
82.	Pepsin	500g
83.	Picric Acid	500ml
84.	Proteinase K Solution	10ml
85.	RNase	5ml
86.	RNase Inhibitor	5ml
87.	SDS: Sodium Dodecyl Sulphate	250g
88.	Serum Albumin testing kit	03(300T)
89.	Silver Nitrate	5g
90.	Sodium Ethylene Diamine Tetra Acetic Acid (Na EDTA)	500g
91.	Spirit	15L
92.	Sucrose	500g
93.	Syber Green Master Mix	2Vials
94.	TAE Acetic Acid	100L
95.	Taq Polymerase (USA/UK/Germany)	200units
96.	TEMED (Merck/BDH/Sigma/Oxoid)	100ml
97.	Testosterone (Eliza kit)	01kit
98.	TG kit Chemistry (150 sample)	01kit
99.	Tris Base(Merck/BDH/Sigma/Oxoid)	500g
100.	Tris chloride(Merck/BDH/Sigma/Oxoid)	500g
101.	Tris HCL	500g
102.	Trizol Reagent	500ml
103.	Tryptic Soy Agar	250g
104.	Tryptone	250g
105.	Xylene	2.5L
106.	Xylene Cyanol	100ml
107.	Yeast Extract	500g
108.	Zinc Nitrate Hexahydrate	100g

List of Glassware & Consumable BS & MS :
for Zoology Department,2020.

Sr No.	Name of Item	Quantity
1.	Beakers 50ml Graduated Glass (Pak/China)	48No.
2.	Beakers100ml Graduated Glass (Pak/China)	48No.
3.	Beakers 250ml Graduated Glass (Pak/China)	48No.
4.	Beakers 500ml Graduated Glass (Pak/China)	36No.
5.	Beakers 1000ml Graduated Glass (Pak/China)	20No.
6.	Boxes for Tips (Blue, Yellow, White)	04each=12 No.
7.	BP Apparatus with Stethoscopes Mercury(Pak/China)	10No.
8.	Centrifuge Tube 5ml	500No.
9.	Centrifuge Tube 15Ml	500No.

10.	Centrifuge Tube Screw Capped	100No.
11.	Cover Slips Glass (Small)	50pack.
12.	Culture Tube Glass 4ml	05pack.
13.	Dropper	100No.
14.	EDTA Coated Tube	500No.
15.	Eppendorf 2ml graduated Conical base	8Pack.
16.	Falcon Tubes 25ml Graduated (Pak/China)	200No.
17.	Falcon Tubes 15ml Graduated (Pak/China)	400No.
18.	Falcon Tubes 50ml Graduated (Pak/China)	100No.
19.	Filter Paper Sheet	01pack.
20.	Flask 250ml	20No.
21.	Glass Bottle with Blue Cap	20No.
22.	Glass pipette(Pak/China) 5ml	20No.
23.	Glass Slide Plain	50Pack.
24.	Glass Vials	200No.
25.	Gloves Surgical	10Boxes
26.	Glucometer	03No.
27.	Large Cover Slips Glass	20pack
28.	Masks	02pack.
29.	Measuring Cylinder 1000ml	10No.
30.	Measuring Cylinder 10ml	12No.
31.	Measuring Cylinder 25ml	12No.
32.	Parafilm 4'	1Roll
33.	Pasture Pipette	250No.
34.	PCR Eppendorf Tube	5pack.
35.	Petri Plate Disposable Pak/China	1000No.
	Petri Plate Glass (90mm) (Pak/China)	200No.
36.	pH Paper	5pack.
37.	Pipette Glass 10ml	30No.
38.	Screw Cap Bottle 100ml Brown Glass (Pak/China)	30No.
39.	Screw Cap Bottle 100ml Transparent Glass (Pak/China)	30No.
40.	Screw Cap Bottle 250ml Brown Glass (Pak/China)	30No.
41.	Screw Cap Bottle 250ml Transparent Glass (Pak/China)	24No.
42.	Screw Cap Bottle 500ml Brown Glass (Pak/China)	30No.
43.	Spatula steel (Spone type)	20No.
44.	Syringes 1ml (Disposable)	300No.
45.	Syringes 3ml (Disposable)	300No.

46.	Syringes 5ml (Disposable)	800No.
47.	Test Tube	1000No.
48.	Tips Blue	5No,
49.	Tips White	10No.
50.	Tips Yellow	10No.
51.	Whatman Filter paper (45No.)	3Pack
52.	Whatman Filter paper (42No.)	3pack
53.	Without EDTA Tube	500No.
54.	Zipper Bag Small	200No.

**Lists of Required Chemical/Glassware & Apparatus For Quotation
of Physics Department Financial Year 2012-21 (Tender 2020-21)**

BS & MS Students:-

Sr. No	Chemical/ Consumable/Instrument Name With Specification	Qty Required
1.	Acetone	20Ltr.
2.	Acetylene Monomer	01 Ltr.
3.	Aluminum Powder Al	500gm
4.	Aluminum Nitrate Nona Hydrate	500gm
5.	Ammonium Nitrate	500gm
6.	Antimony Oxide SbO	500gm
7.	Ascorbic acid	500gm
8.	Aniline Monomer	01 Ltr.
9.	Bromo Phenol Blue (BPB)	100gm
10.	Bismuth Oxide BiO	500gm
11.	Boron Tri-i-Prop Oxide [B(O-i-C₃H₇)₃	100ml/gm
12.	Calcium oxide (CaO)	500gm
13.	Cobalt Nitrate (Co ₂ NO ₃)	500gm
14.	Cobalt Oxide CoO	500gm
15.	Cobalt Tri Oxide Co₂O₃	500gm
16.	Copper Nitrate 3 Hydrate Cu(NO ₃) ₂ .3H ₂ O	01 kg
17.	Cerium Nitrate Ce(NO₃)₂	500gm
18.	Cerium Nitrate Tetra Hydrate Ca(NO ₃) ₂ .4H ₂ O	500gm
19.	Cerium Nitrate Hexa Hydrate Ca(NO ₃) ₂ .6H ₂ O	500gm
20.	Cerium Nitrate Nona Hydrate Ca(NO ₃) ₂ .9H ₂ O	500gm
21.	Cesium Nitrate	500gm
22.	Cesium Acetate	500gm
23.	Cesium Chloride	500gm
24.	Chromium Nitrate 9 Hydrate	500gm
25.	(DPPH) 2, 2-Diphenyl-1-picrylhydrazyl	500ml
26.	Dysprosium Nitrate	100gm
27.	Dysprosium Nitrate Hydrate Dy(NO ₃) ₃ .6H ₂ O	100gm
28.	Europium III Nitrate Hexa Hydrate Eu(NO ₃) ₃ .6H ₂ O	200gm
29.	Europium(III) Chloride (EuCl₃)	100gm
30.	Erbium Nitrate Er ₂ (NO ₃) ₃ 6.H ₂ O	100g
31.	Europium III Nitrate Eu(NO ₃) ₃	100g
32.	Europium Nitrate 5 Hydrate Eu(NO ₃) ₃ .5H ₂ O	100gm
33.	Europium III Nitrate Eu(NO ₃) ₃	100gm
34.	Gold Oxide (AuO)	100gm
35.	Gold Nitrate	100gm
36.	Gold Chloride AuCl ₃ 99% pure	100gm/ml
37.	Gold Chloride Solution 99.99% HAuCl ₄	500ml/gm
38.	Gadolinium Nitrate Hexa Hydrate Gd(NO ₃) ₃ .6H ₂ O	100gm
39.	Gallium Powder Ga	100gm
40.	Gallium Nitrate Ga(NO ₃) ₂	100gm
41.	Gallium Nitrate Nano Hydrate Ga(NO ₃) ₃ .9H ₂ O	100gm
42.	Hydrogen Peroxide H ₂ O ₂	500gm
43.	Holmium Nitrate	100gm
44.	Hassium Oxide	100gm
45.	Iridium Nitrate	100gm
46.	Iron Nitrate Fe(NO ₃) ₃	1kg
47.	Iron Nitrate Hexa Hydrated Fe(NO ₃) ₃ .6H ₂ O,	1kg
48.	Iron Nitrate Nano Hydrated Fe(NO ₃) ₃ .9H ₂ O,	1kg
49.	Iron Oxide (FeO) Sigma	1kg
50.	Iron Dioxide (FeO ₂) Sigma	500gm
51.	Iron Tri Oxide (Fe ₂ O ₃) Sigma	500gm
52.	Indole Monomer	100gm
53.	Lithium Carbonate Li ₂ CO ₃ ,	500gm
54.	Lithium Hydro Oxide LiOH	500gm

55.	Lanthanum Oxide	La ₂ O ₃	500 gm
56.	Lanthanum Nitrate	LaNO ₃	500gm
57.	Lutetium III Oxide	Lu ₂ O ₃	100gm
58.	Lutetium III Nitrate	Lu(NO ₃) ₃ .H ₂ O	100gm
59.	Lutetium Nitrate		100gm
60.	Molybdenum III Oxide	MO ₃	100gm
61.	Molybdenum Nitrate		100gm
62.	Manganese Di Oxide	MnO ₂	100gm
63.	Melamine		100gm
64.	Nickel Wire		01 Meter
65.	Nickel(II) Carbonate	2NiCO ₃	500gm
66.	Nickel Nitrate Hexa Hydrate	Ni(NO ₃) ₂ .6H ₂ O	500gm
67.	Nickel Oxide Substrate	NiO	100gm
68.	Nickel Hydroxide Tetra Hydrate	Ni(OH) ₂ .4H ₂ O	500gm
69.	Nutrient Agar		1kg
70.	Nutrient Broth		1kg
71.	Niobium Nitrate	NbNO ₃	200gm
72.	Niobium Oxide		200gm
73.	Niobium V Oxide	Nb ₂ O ₅	200gm
74.	Neodymium Nitrate		200gm
75.	Pluronic acid		500ml/gm
76.	Praseodymium Nitrate	PrNO ₃	100gm
77.	Pyrrole Monomer		500ml
78.	Praxdymi Nitrate Hexa Hydrate	Pr(NO ₃) ₃ .6H ₂ O	500gm
79.	Promethium Nitrate Hexa Hydrate	Pm(NO ₃) ₃ .6H ₂ O	500gm
80.	Palladium Oxide (PdO)		500gm
81.	Polyimide substrate		500gm
82.	K ₂ HPO ₄ · 3H ₂ O		500gm
83.	KOH		500gm/ml
84.	Potassium Nitrate		500gm
85.	Potassium Carbonate		500gm
86.	PEG (CH ₂ OH) ₂		500gm/ml
87.	PVA (C ₂ H ₄ O)		500gm/ml
88.	PVA (C ₃ H ₄ O ₂) _n		500gm/ml
89.	PVP (C ₆ H ₉ NO) _n		500gm/ml
90.	Quartz Substrate		500gm
91.	Rhodium Oxide		500gm
92.	Rhenium Nitrate		100gm
93.	Ruthenium Nitrate		100gm
94.	Selenium Black Powder Merck Germany or equivalent		200gm
95.	Selenium Oxide		100gm
96.	Sodium Hydro Oxide	NaOH	500gm
97.	Sodium Chloride	NaCl	500gm
98.	Sodium oxide	(Na ₂ O)	500gm
99.	Strontium oxide	(SrO)	500gm
100.	Sodium Sulphide Nano Hydrate	Na ₃ S.9H ₂ O	500gm
101.	Scandium Nitrate		100gm
102.	Samarium (III) Oxide	(Sm ₂ O ₃)	500gm
103.	Samarium(III) Nitrate Hexa Hydrate	(Sm(NO ₃) ₃).6H ₂ O	500gm
104.	Samarium Chloride Hexa Hydrate	(SmCl ₃ .6H ₂ O)	100gm
105.	Samarium Bromide	(SmBr ₃)	100gm
106.	Silver Paste		100gm
107.	Silver Oxide (AgO)		200gm
108.	Silver Nitrate	AgNO ₃	200gm
109.	Silver Nitrate (AgNO ₃).H ₂ O		200gm
110.	Silver Nitrate Hexa Hydrate	(AgNO ₃).6H ₂ O	200gm
111.	Silver Nitrate Nona Hydrate	(AgNO ₃).9H ₂ O	200gm
112.	Silver Chloride		200gm
113.	Silicon Carbide	SiC	500gm
114.	Sodium Hydrogen Phosphate	NaH ₂ PO ₄	500gm

115.	Sodium Oleate	500gm
116.	Toluene	100ml/gm
117.	tri-block copolymer Pluronic F-127, F-68 Pluronic F-127 Absolute Ethanol	500ml/gm
118.	Tin II Chloride Dihydrate	500gm
119.	Titanium Dioxide TiO_2	500gm
120.	Titanium Chloride $TiCl_4$	500gm
121.	Titanium IV Isoprop oxide	1Ltr.
122.	Titanium Tetra Isoprop Oxide $Ti[OCH(CH_3)_2]_4$	05Ltr.
123.	Terbium(I) Chloride (TbCl₃)	500gm
124.	Terbium III Oxide Tb_2O_3	100gm
125.	Terbium IV Oxide Tb_4O_7	100gm
126.	Terbium Nitrate	100gm
127.	Terbium Nitrate Hexa Hydrate $Tb(NO_3)_3.6H_2O$	100gm
128.	Thulium Nitrate	100gm
129.	Tetra Butyl Titan ate $(C_{16}H_{36}O_4Ti)$	500ml/gm
130.	Thorium Nitrate	100gm
131.	Tellurium Nitrate	100gm
132.	Tetra ethyl Ortho Silicate	1 Ltr.
133.	Toluene	100gm/ml
134.	Vanadium V Oxide V_2O_5	100gm
135.	Vanadium Nitrate VNO_3	100gm
136.	Ytterbium Nitrate	100gm
137.	$Y(NO_3)_3.6H_2O$	100gm
138.	Zinc Acetate Hexa Hydrate	500gm
139.	Zinc Nitrate $Zn(NO_3)_2$	500gm
140.	Zinc Nitrate Hydrate $Zn(NO_3)_2.H_2O$	500gm
141.	Zinc Nitrate Hexa Hydrate $Zn(NO_3)_2.6H_2O$	500gm
142.	Zinc Carbonate Hydrate $ZnCO_3$	500gm
143.	Zinc Hydro Oxide Hydrate $2Zn(OH)_2.H_2O$	500gm
144.	Zirconium Oxide ZrO	500gm
145.	Zirconium Dioxide ZrO_2	500gm
146.	Zirconium Trioxide Zr_2O_3	500gm
147.	Zirconium Nitrate 5 Hydrate $ZrO(NO_3).5H_2O$	500gm
148.	Zirconium Nitrate Hexa Hydrate $ZrO(NO_3).6H_2O$	500gm
149.	Zirconium Ox Chloride $ZrCl_2.8H_2O$	250gm
150.	Zirconium IV Oxy Nitrate Hydrate $ZrO(NO_3)_2.2H_2O$	250gm
151.	Ziconyl Acetate	500gm/ml
152.	$ZrO(CH_3OOH)_2$	500gm/ml
153.	Beaker 50ml Imported	200 Nos.
154.	Beaker 100ml Imported	200 Nos.
155.	Beaker 250ml Imported	200 Nos.
156.	Beaker 500ml Imported	200 Nos.
157.	Copper Sheets (1 feet x 1feet)	05 Sheets
158.	Ceramic Boats Medium size	500 Nos.
159.	Ceramic Boats Large size	500 Nos.
160.	Disposable Chemical Gloves Rubber Imported	12 Pkt
161.	Digital Distillation Water Plant Imported	01 Nos.
162.	Filter Bio-sterile syringe filter DES PES 0.2um,33mm Imported	06 Boxes
163.	Face Mask Best Quality	12 Box
164.	FTO Glass Slides Imported	12Pck
165.	Flask Glass With Lid 50ml Imported	100Nos.
166.	Flask Glass With Lid 10ml Imported	100Nos.
167.	Flask Glass With Lid 250ml Imported	100Nos.
168.	Flask Glass With Lid 500ml Imported	100Nos.
169.	Three Neck Round Bottom Flask 100ml Imported	12 Nos
170.	Three Neck Round Bottom Flask 250ml Imported	12Nos
171.	Three Neck Round Bottom Flask 500ml Imported	12Nos
172.	Glass Culture Tubes With Lid Imported	200Nos.
173.	Glass Measuring Cylinder 200ml Imported	36 Nos.

174.	Glass Measuring Cylinder 50ml	Imported	36 Nos.
175.	Glass Stirring Rods	Imported	02 Pkt.
176.	Laboratory thermometers	Imported	12 Nos
177.	Magnetic Stirrers 2 inch long	Imported	100 Nos.
178.	Magnetic Stirrers 1.5 inch long	Imported	100 Nos.
179.	Micro pipette 10-100 μ l, 100-1000 μ l	Imported	10 Nos.
180.	Micro Pipette Glass	Imported	12Nos.
181.	Motel and Pestle Ceramic 4inch Bottom		06 Nos.
182.	Motel and Pestle Ceramic 6inch Bottom		06 Nos.
183.	Nickel Wire		01 Roll
184.	Petric Dishes Glass	Imported	36 Nos.
185.	Reflux Condenser Flask	Imported	06 Nos.
186.	Spatula pure steel metal		36 Nos.
187.	Sample Containers Plastic 100ml/gm		500Nos.
188.	Sample Containers Plastic 200ml/gm		500Nos.
189.	Sample Containers Plastic 500ml/gm		500Nos.
190.	Tweezers Set Steel/Equalent	Different Size	06 set
191.	Tissue Paper Roll		50 Roll
192.	Tubes for Centrifuge Machine Plastic with Lid 15ml	Imported	100 Nos.
193.	Test Tubes Glass	Imported	100 Nos.
194.	Transfer Pipettes (Calibrated Droppers)	Imported	100 Nos.
195.	Laboratory Thermometer 360C ^o		12Nos.
196.	Bread Board		12 Nos.
197.	Connecting Copper Thick Wire 1/29 (Patti fitting copper Wire) Best Quality		20 Roll
198.	Ceramic Hot Plate	USA/Germany	05 Nos.
199.	Digital IC Tester	Imported	01 Nos.
200.	Dielectric Constant Apparatus Complete	Pak/Imported	05 Nos.
201.	e/m Electron Beam Method	USA/Equalent	01Nos.
202.	e/m Accessories in a box without Power Supply	Al-Malik Pak	03 Nos.
203.	Fractional Resistance Box (0.001 Ω -1 Ω -5 Ω)	Imported	10Nos.
204.	GW DC Power Supply (0-30V) Model: RPR-3030 Made in	Malaysia/Equalent	05 Nos.
205.	High Resistance Box 0-5000 Ohm Made in Japan/	Equalent	06 Nos.
206.	Ionization Tubes Only Model: CV-32, HALTRON 3/L/61 OR HANGZHOU 72 IX, EGt 0.3/8.5 OR	Equalent	12 Nos.
207.	IC Resistance Box	Imported	01 Nos.
208.	L-Key set BALLSTAR (T9-T40 No.)	Imported	01 Nos.
209.	Muffle Furnace 1600 $^{\circ}$ C	Imported	01 Nos.
210.	Muffle Furnace upto 1400 $^{\circ}$ C temp.	Imported	01 Nos.
211.	Radio Active Source Alpha , Beta, Gemma	Imported	01 Nos.
212.	UV Spectro Photometer Double Beam	Imported	01 Nos.
213.	Electro Deposition Chamber With Complete Accessories	Imported	02 Nos.
214.	Two Electrodes Electrochemical Cell (250ml Capacity with Fixed Carbon electrode (as Anode) and Cathode is Changeable by Placing required Substrate	Imported	02 Nos.
215.	Three Electrodes Electrochemical Cell	Imported	02 Nos.
216.	Crocodile Wires For Connection	Imported	02 Set
217.	Avometer (Measuring Current in Milli and Micro Ampere)	Imported	02 Nos.
218.	DC Power Supply (0-3V With an interval of 0.1V)	Imported	02 Nos.

List of Materials for Ph.D Scholar

Fatima Saher:-

Sr. No	Chemical/ Consumable/Instrument Name With Specification	Qty Required
1.	Copper Nitrate 3 Hydrate	500gm
2.	Copper Nitride Cu ₃ N	300gm

3.	Cerium Nitrate	Ce(NO ₃)	300gm
4.	Cerium Nitride	CeN	300gm
5.	Gadolinium Nitride	GdN	300gm
6.	Iron Trioxide	Fe ₂ O ₃	1Kg
7.	Iron Nitride	FeN	500gm
8.	Lanthanum Nitride	LaN	500gm
9.	Nickel Oxide	NiO	500gm
10.	Nickel Nitrate		500gm
11.	Nickel Nitride	NiN	500gm
12.	Samarium Nitride	SmN	500gm
13.	Strontium Nitride	Sr ₃ N ₂	500gm
14.	Silicon Nitride	SiN	500gm
15.	Zirconium Oxide	ZrO	500gm
16.	Zirconium Dioxide	ZrO ₂	500gm
17.	Zirconium Nitride	ZrN	500gm

DEPARTMENT OF BIOTECHNOLOGY
LIST OF CHEMICALS

Sr. #	Item	Cas / catalogue no	Size// quantity
1.	Dialysis tubing cellulose membrane (molecular weight cut-off = 12,000-14,000)	D9652-100FT	avg. flat width 33 mm (1.3 in.),
2.	Ammonium molybdate	277908-5G	5 g
3.	Iron(III) chloride hexahydrate	10025-77-1	250 G
4.	Polycarbonate membrane filter (formumax The formulation expertF1N8119 100 nm pore size)	Avanti 87028 2P-200mg	1 pack
5.	Acetic acid	64-19-7	1L
6.	Anaerobic jar	HP0011A	
7.	Triton X 100	9002-93-1	50ML
8.	Whatman nucleopore track etched membranes 13mm diameter, poresize 0.1µ m	WA110405	100 PACK
9.	Cholesterol	57-88-5	1G
10.	Ammonium Sulphate	7783-20-2	100G
11.	Tween 80	9005-65-6	500ML
12.	Slide-a-Lyzer Dialysis cassetts	66380(10 cassetts)	10K MWCO, 3 ml
13.	Peptone from meat, bacteriological	_ 91249-500G	
14.	Yeast Extract	92144-500G-F	
15.	Fibrinogen, Human Plasma 90-98% purity	341576-100MG-M	100mg
16.	THROMBIN, Human PLASMA 90-98% purity	605190-100U-M	100U
17.	Agarose	A4418-100G	500g
18.	Salmonella Shigella agar (SS Agar)	85640-500G	500gm
19.	sephadex G-50 resin and prepared column	GE27-5330-01	1 pkg
20.	Mannitol salt agar	105404	500gm
21.	EDTA	60-00-4 (EDS-100G)	100g
22.	SDS	151-21-3 (L6026-50G)	50g
23.	Triton x-100	9002-93-1 (X100-100ML)	100ML
24.	MgSO₄	7487-88-9 (M7506-500G)	500g
25.	ZnSO₄ · 7H₂O	7446-20-0 (Z0251-100G)	100g
26.	K₂SO₄	7778-80-5 (P0772-250G)	250g
27.	Methanol	67-56-1 (34860-1L-R)	1L
28.	Aurum chloride Gold (III) chloride 99%	13453-07-1 (334049-500MG)	500MG
29.	Ethylene glycol	100ml	
30.	Paraffin liquid	2.5L	
31.	glycerol	2.5L	
32.	Acetone	2.5L	
33.	Sulfuric acid	2.5L	
34.	HCl	2.5L	
35.	DNS	100-500g	
36.	MgClO₄	100-500g	
37.	Carboxymethyl cellulose	100-500g	

38.	Agar	500g	
39.	Glucose monohydrate	100g	
40.	MacConkey agar	500g	
41.	PEG	500ml	
42.	Pot.Sod. tartarate	500g	
43.	Diammonium oxalate monohydrate	500g	
44.	Sodium carbonate anhydrous	500g	
45.	Nutrient broth	500g	
46.	Lb broth	500g	
47.	Eosin methylene blue agar EMB	100-500g	
48.	Potato dextrose agar	500g	
49.	Methanol	2.5L	
50.	Ethanol	2.5L	
51.	Potassium hydrogen phosphate	100-500g	
52.	Glucose	50-99-7 (G8270-100G)	100G
53.	Sucrose	57-50-1 (S0389-500G)	100G
54.	Maltose	6363-53-7 (M5885-100G)	100G
55.	Fructose	57-48-7 (F0127-100G)	100G
56.	Lactose	5989-81-1 (L3625-1KG)	100G
57.	Propanol	2.5L	
58.	Trichloroacetic acid	500ML	
59.	Chitin—from shrimp cells	500g	
60.	NaCl	500g	
61.	NaOH	500g	
62.	KCL	500g	
63.	Meat extract	500g	
64.	Pot.phosphate diabasic	500g	
65.	Pot.phosphate tribasic	500g	
66.	Sod. Dihydrogen phosphate	500g	
67.	Pot. Dihydrogen phosphate	500g	
68.	Zinc sulphate heptahydrate	500g	
69.	Magnesium sulphate heptahydrate	100-500g	
70.	Tryptone soy broth	500g	
71.	Copper nitrate	100-500g	
72.	Sodium nitrate	100-500g	
73.	Sodium borohydride	100-500g	
74.	Polyvinyl pyrovidone		
75.	Safaranin o	50-100g	
76.	Congo red	50-100g	
77.	AgNO ₃	100g	
78.	Potassium iodide	50-100g	
79.	Crystal violet	50-100g	
80.	Butanol	2.5L	
81.	Tween 20	50ML	
82.	Clove oil	500ML	
83.	Xylene	2.5L	
84.	Ammonium oxalate	500G	
85.	Sod.EDTA	500g	
86.	FeSO ₄	100-500g	
87.	Glycine	2.5ml	
88.	ZnSO ₄	500g	
89.	Diasodium Na ₂ HPO ₄	500g	
90.	Riboflavin	10-50g	
91.	Ciprofloxacin	10-50g	
92.	Xylose	10-50g	
93.	Sod. Acetate	500g	
94.	Malachite green	20-100g	
95.	Pot. Sulphate	500g	
96.	Coomassie blue	50-100g	
97.	Yeast extract	500g	

98.	HEPES	100-500g	
99.	Sulphanilamide	100-500g	
100.	Methylene blue	50-100g	
101.	Urea	50-100g	
102.	Copper nitrate	500g	
103.	Pot.nitrate	500g	
104.	Soybean powder	500g	
105.	Sodium nitrate	500g	
106.	Peptone	500g	
107.	Tris Hcl	500g	
108.	Tris base	500g	
109.	Barium chloride	100-500g	
110.	Calcium chloride	500g	
111.	Ammonium chloride	12125-02-9 (213330-25G)	100G
112.	Potassium nitrate	7757-79-1 (221295-100G)	100G
113.	Glutamate	138-15-8 (G2128-100G)	100G
114.	Syringe Filter	CLS431231-50EA (0.45micron, 25mm)	pack of 50
115.	Trizma base	100-500g	

BIO TECHNOLOGIES LIST OF GLASSWARE/PLASTIC WARE

Sr. No.	Name of items	Qty.
1.	Petri plates standard size 100mm-15mm (50 pairs) Anumbara	
2.	Reagent bottles 50-100ml (2)	
3.	Wash bottles (2)	
4.	Glass slides (12 packs)	
5.	Large flasks(500ml) (2)	
6.	Flasks (1000ml) (1)	
7.	Small flasks(250ml) (10)	
8.	Spirit lamp (2)	
9.	Tip boxes (5)	
10.	Test tubes (50)	
11.	Stirrer (15)	
12.	Spreader (10)	
13.	Falcons 50 ml 1 packet	
14.	Falcons 15ml 1 packet	
15.	Yellow tips 1 packet	
16.	White tips 1 packet	
17.	Blue tips 1 packet	
18.	Tip boxes (2)	
19.	Falcon stands 15-50ml (2)	
20.	Eppendorfs 2ml 1 packet	
21.	Eppendorf boxes 2boxes	

DEPARTMENT OF BIOTECHNOLOGY
LIST OF GLASSWARE / PLASTIC WARE)

Sr. No.	Item Name	Make	Qty
1.	Crucibles	China / Local	25
2.	Funnels	China / Local	25
3.	Glass beaker 1000ml	China / Local	25

4.	Glass beaker 100ml	China / Local	25
5.	Glass beaker 250ml	China / Local	25
6.	Glass beaker 500ml	China / Local	25
7.	Glass spirit lamps	China / Local	25
8.	Plastic beaker 100ml	China / Local	25
9.	Plastic beaker 250ml	China / Local	25
10.	Plastic beaker 500ml	China / Local	25
11.	Glass beaker 50ml	China / Local	25
12.	China Dishes	China / Local	50
13.	Glass measuring cylinder 100ml	China / Local	25
14.	Glass measuring cylinder 500ml	China / Local	25
15.	Glass measuring cylinder 50ml	China / Local	25
16.	Glass measuring cylinder 250ml	China / Local	25
17.	Glass measuring cylinder 10ml	China / Local	25
18.	Conical flask 100ml	China / Local	50
19.	Conical flasks 1000ml	China / Local	50
20.	Conical flasks 250ml	China / Local	50
21.	Conical flasks 500ml	China / Local	50
22.	Plastic beaker 50ml	China / Local	50
23.	Glass droppers	China / Local	25
24.	Glass pipettes 10ml	China / Local	25
25.	Glass pipettes 5ml	China / Local	25
26.	Stirrers	China / Local	25
27.	Plastic beaker 1000ml	China / Local	25
28.	Glass measuring cylinder 1000ml	China / Local	25
29.	Plastic measuring cylinder 250ml	China / Local	25
30.	Plastic measuring cylinder 100ml	China / Local	25
31.	Plastic measuring cylinder 500ml	China / Local	25
32.	Plastic measuring cylinder 50ml	China / Local	25
33.	Plastic measuring cylinder 10ml	China / Local	25
34.	Test tubes	China / Local	1000
35.	Glass pipettes 0.1ml	China / Local	25
36.	Petri plates	China / Local	500 pair
37.	Screw capped reagent Bottles (Pyrex) 1000 ml	China / Local	25
38.	Screw capped reagent Bottles (Pyrex) 500 ml	China / Local	25
39.	Screw capped reagent Bottles (Pyrex) 250 ml	China / Local	25
40.	Loop	China / Local	25
41.	Test Tube Stand	China / Local	25
42.	Test Tube Holder	China / Local	25
43.	Spreader	China / Local	25
44.	Sucker Bulb	China / Local	25
45.	Flask 2000 ml	China / Local	20
46.	Mortor & pastle	China / Local	50
47.	Plastic beaker 2000	China / Local	25
48.	Plastic beaker 5000	China / Local	25
49.	Blue Tips	China / Local	25 pkt
50.	White Tips	China / Local	25 pkt
51.	Yellow Tips	China / Local	25 pkt
52.	PCR Tubes	China / Local	25 pkt
53.	Falcon Tube 15ml	China / Local	25 pkt
54.	Falcon Tube 50ml	China / Local	25 pkt

55.	Eppendorf 1.5ml	China / Local	25 pkt
56.	Eppendorf 2 ml	China / Local	25 pkt
57.	Cotton Roll	China / Local	25
58.	Viscometer	China / Local	25
59.	Cover Slides	China / Local	25 pkt
60.	Pipette pump	China / Local	25
61.	Whatman filter paper	China / Local	10
62.	Cryo Vials	China / Local	5 pkt
63.	Screw capped reagent Bottles 100 ml	China / Local	25
64.	Tripod stand	China / Local	25
65.	Cryo Vial Boxes	China / Local	25
66.	Blotting Paper	China / Local	20 pkt
67.	Filter Paper	China / Local	20 pkt
68.	Blue Tip Box	China / Local	25
69.	Yellow Tip Box	China / Local	25
70.	White Tip Box	China / Local	25
71.	Wash Bottle	China / Local	25
72.	Membrane filter paper	China / Local	10
73.	Aluminum Foil	China / Local	25
74.	Gloves	China / Local	25
75.	Microscope slides	China / Local	25 pkt
76.	Plastic measuring cylinder 2000ml	China / Local	25
77.	Petri Plates Disposable	China / Local	250 pair
78.	Plastic measuring cylinder 1000ml	China / Local	20

BIO TECHNOLOGIES LIST OF EQUIPMENT'S

Sr. No.	Name of items	Make	Qty.
1.	Petri Plates Disposable	China / Local	250 pair
2.	Plastic measuring cylinder 1000ml	China / Local	20

BIO TECHNOLOGIES LIST OF EQUIPMENT

<i>Sr. No.</i>	<i>Equipment Name & Specifications</i>	<i>Qty</i>
1.	Horizontal Midi Gel Electrophoresis Apparatus (Clever Scientific, UK) OR Equivalent	1
2.	Binocular Biological Microscope (Irmeco, Germany) OR Equivalent	1
3.	2ft Microbiological Safety Cabinet with Digital Display (Local) OR Equivalent	1
4.	UV Transilluminator Wealtec, USA OR Equivalent	1
5.	Electronic Analytical Balance Digital Shimadzu, Japan OR Equivalent	1
6.	Power Supply (Life technologies) OR Equivalent	1

7.	Clinical Centrifuge UK / USA OR Equivalent	1
8.	Distillation Apparatus Irmeco, Germany OR Equivalent	1

BIO TECHNOLOGIES
LIST OF KITS / CHEMICALS

<i>Sr. No.</i>	<i>Name of Item</i>	<i>Qty</i>
1.	Maxima Syber Green / Rox qPCR Master Mix Thermo-Scientific OR Equivalent	02 x 1000 Rxns
2.	FavorPrep Viral RNA Extraction Kit (Favorgen) OR Equivalent	02 x 300 Rxns
3.	SuperScript III Platinum One-step qRT-PCR Kit (Thermo Scientific) OR Equivalent	02 x 500 Rxns
4.	TaqMan Fast Virus 1-Step MasterMix Thermo Scientific OR Equivalent	03 x 1 ml
5.	Revertaid First Strand cDNA Synthesis Kit Thermo Scientific OR Equivalent	02 x 100 Rxns
6.	dNTP's Set 100Mm Solution Thermo Scientific OR Equivalent	02 x (4x0.25 ml)
7.	Random Hexamer Primer Thermo Scientific OR Equivalent	02 x 120 ul
8.	GeneJet Genomic DNA Purification Kit Thermo Scientific OR Equivalent	02 x 50 prep's
9.	DreamTaq Green PCR Master Mix Thermo Scientific OR Equivalent	02 x 200 rxns
10.	First Strand CDNA Synthesis kit Thermo Scientific OR Equivalent	02 x 100 Rxns

BIO TECHNOLOGIES
LIST OF GLASSWARE

Sr. No.	Name of items	Qty.
1.	Petri plates standard size 100mm-15mm (50 pairs) Anumbara	
2.	Reagent bottles 50-100ml (2)	
3.	Wash bottles (2)	
4.	Glass slides (12 packs)	
5.	Large flasks(500ml) (2)	
6.	Flasks (1000ml) (1)	
7.	Small flasks(250ml) (10)	
8.	Spirit lamp (2)	
9.	Tip boxes (5)	

10.	Test tubes (50)	
11.	Stirrer (15)	
12.	Spreader (10)	
13.	Falcons 50 ml 1 packet	
14.	Falcons 15ml 1 packet	
15.	Yellow tips 1 packet	
16.	White tips1 packet	
17.	Blue tips 1 packet	
18.	Tip boxes (2)	
19.	Falcon stands 15-50ml (2)	
20.	Eppendorfs 2ml 1 packet	
21.	Eppendorf boxes 2boxes	

BIO TECHNOLOGIES DEPARTMENT

List of Chemicals

Sr.No.	Chemicals	Company	Quantity
1	Ethanol	Merck or Equivalent	2×2.5 L
2	Chloroform	Merck or Equivalent	2×2.5 L
3	Isopropanol	Merck or Equivalent	2×2.5 L
4	Iso-amyl	Merck or Equivalent	2×2.5 L
6	NaOH	Merck or Equivalent	2×500 g
7	NaCl	Merck or Equivalent	2×500 g
8	PDA(Potato dextrose agar)	Merck or Equivalent	2×500 g
9	Agar	Merck or Equivalent	2×500 g
10	LB Broth (Luria broth)	Merck or Equivalent	2×500 g
11	Nutrient Broth	Merck or Equivalent	2×500 g
12	CMC	Merck or Equivalent	2×500 g
13	Tris base	Merck or Equivalent	1×250 g
14	HCL	Merck or Equivalent	2.5L × 1
15	Soluble Starch	Merck or Equivalent	1×500 g
16	Glucose	Merck or Equivalent	1×500 g
17	BSA (Bovine serum albumin)	Merck or Equivalent	25g
18	DNS (3,5-Dinitrosalicylic acid)	Merck or Equivalent	100g
19	Ligation kit	Merck or Equivalent	1
20	TA cloning kit	Merck or Equivalent	1
21	Taq polymerase	Merck or Equivalent	5
22	Pcr purification gel	Merck or Equivalent	1
23	Citrus Pectin	Merck or Equivalent	100g
26	APS(ammonium persulphate)	Merck or Equivalent	
27	SDS(Sodium Dodecyl Sulfate)	Merck or Equivalent	1×500
28	Crystal violet	Merck or Equivalent	25g
29	Nutrient agar	Merck or Equivalent	500×2
30	Sufaranine O	Merck or Equivalent	25g
31	Ammonium oxlylate	Merck or Equivalent	1Kg
33	Xylan	Merck or Equivalent	25g
34	Fructose	Merck or Equivalent	500g
35	Xylose	Merck or Equivalent	500g
36	Maltose	Merck or Equivalent	500g
37	Butanol	Merck or Equivalent	2.5L
39	phenol	Merck or Equivalent	1Kg
40	acetone	Merck or Equivalent	2.5L
41	MacCknokey agar	Merck or Equivalent	500g
42	Salmonella Shigella agar	Merck or Equivalent	500g
43	KCl	Merck or Equivalent	1Kg
44	Formaic Acid	Merck or Equivalent	5×2.5 L
45	Sodium nitrate	Merck or Equivalent	500g
46	Potassium nitrate	Merck or Equivalent	1kg
47	Potassium di hydrogen	Merck or Equivalent	1kg
48	Di Potassium hydrogen Phosphate	Merck or Equivalent	1kg
49	Cellulase Enzyme (5000U/g)	Merck or Equivalent	1g
50	Protease Enzyme	Merck or Equivalent	1g
51	Lipase Enzyme(200U/g)	Merck or Equivalent	1g
52	Alpha Amylase (380units)	Merck or Equivalent	1

LIST OF CHEMICALS FOR RESEARCH, DEPARTMENT OF BIOTECHNOLOGY, LCWU, LAHORE		
MERCK OR EQUIVALENT US OR EQUIVALENT ONLY ISO:9001 CERTIFIED AND ACCREDITED COMPANIES		
Sr.No.	Name of Item with Specification	Qty.
1.	Iron(III) (ferric) chloride hexahydrate	100-500 g
2.	Ciprofloxacin $\geq 98\%$ (HPLC)	5 g
3.	Acetonitrile HPLC Grade	2.5L
4.	Syringe Filters Pore size 0.45 μm , diameter 13 mm, non-sterile, high-density polyethylene housing modified hydrophilic PTFE membrane	2 packs
5.	Whatman® Nuclepore™ Track-Etched Membranes diam. (13 mm), pore size 0.4 μm , polycarbonate, pack of 100 each	2 packs
6.	Formalin analytical grade	2.5L
7.	Comessie brilliant blue R250	25g
8.	Whatman Stainless Steel Syringe Filter Type Membrane Filter Holder, 13mm Diameter	2 pieces
9.	Bovine serum albumin BSA	25g
10.	Protein ladder 7-175kD Prestained blue marker	1 vial (250 ul)
11.	Protein ladder 7-175kD Prestained colour marker	1 vial (250 ul)
12.	Streptokinase Injection 1.5MIU	1
13.	Urokinase Injection 500000IU	1
14.	Dithiothreitol	250 mg
15.	Iodoacetamide	5g
16.	Trifluoro Acetic Acid	100 ml
17.	Ammonium-bicarbonate	500g
18.	TLC plates gel 60 F 254	25 units
19.	Acetone	2.5 L
20.	Caseine	100g
21.	TCA (Trichloro acetic acid)	100g
22.	Citrus pectin	25
23.	Peptone	500g
24.	KOH	500g
25.	Blood DNA extraction Kit	50 reactions
26.	Viral RNA extraction Kit	50 reactions
27.	Trizol	50 mL
28.	Gel Elution Kit	50 reactions
29.	Primer Synthesis (20 – 30 bases each primer)	
30.	Sequencing (Upto 1Kb)	
31.	Equipment : Spectrophotometer double beam thermo or equivalent fisher scientific	

LIST OF EQUIPMENT FOR RESEARCH, DEPARTMENT OF BIOTECHNOLOGY, LCWU, LAHORE		
Sr.No.	Name of Item with Specification	Qty.
1.	Spectrophotometer double beam Thermo fisher Scientific or Equivalent	

LIST OF EQUIPMENT FOR 2020-2021
ENVIRONMENTAL SCIENCE DEPARTMENT

Sr.#	Name of Item with Specification	Qty.
01	Ozone Generator Capacity: 10gm/hour Pump: 500W Auto: Timer and Counter Body: Stainless Steel Make: Local	01
02	Air Analyzer Make: UK/USA/Germany/Japan or Equivalent	01
03	TOC Analyzer Make: UK/USA/Germany/Japan or Equivalent	01
04	UV/VIS/NIR Spectrophotometer Make: UK/USA/Germany/Japan or Equivalent	01
05	Digital Binocular with Camera 12x32 HD 1080p Binoculars Digital camera 5MP CMOS USB Binocular Telescope 2.0" Screen Zoom Telescope Camcorder Video Recording Make: UK/USA/Germany/Japan or Equivalent	01
06	Digital Binocular with Camera 5M 2" LCD 16GB Digital Binocular with Camera 12X Zoom Video Photo Recorder Camcorder for Bird Watching. Color Black Silver Focus Type Manual Focus Objective Lens 32 Millimeters Diameter Make: UK/USA/Germany/Japan or Equivalent	01
07	Handheld Photosynthesis System CI-340 The CI-340 Handheld Photosynthesis System is a portable, single-handed tool that measures photosynthesis, respiration, transpiration, stomata conductance and internal CO-2. Light-weight and durable, the CI-340 was designed for field use. Make: UK/USA/Germany/Japan or Equivalent	01
08	Texture Analyzer Make: UK/USA/Germany/Japan or Equivalent	01
09	Ultra Filtration Membrane (10Kba)	01Pack
10	Nano Filtration Membrane (<10Kba)	01Pack
11	Nile Red Dye	01Pack
12	MCE Grinded	01Pack
Sr.#	Name of Item with Specification	Qty.
13	DPPH	01Pack
14	Aflatoxin Kit	01Pack
15	Malt Extract Agar Media	01Pack
16	Nutrient Agar Media	01Pack
17	SPE (Solid Phase Extraction) Unit Applications:	01

	<p>SPE as an effective sample pre-treatment technology has been widely applied in various fields. Current analytical methods may require SPE preparation include GC, GC-MS, LC, and LC-MS, and cover the following filed: Environmental Sector: Water sample pre-treatment, pesticides and herbicides, oil and grease etc.</p> <p>Specification:</p> <p>Output: 0–20 psi (0–1.4 bar)</p> <p>Input: max 100 psi (6.9 bar)</p> <p>Liquid Management LH Syringe: One 5mL liquid handling syringe</p> <p>Valve: two 8-port valve, Teflon</p> <p>Sample Pumps: 6 high precision ceramics metering pump</p> <p>Displacement: Positive</p> <p>Sample Volume: 0.5-20L</p> <p>Flow Rate: 0.5-20mL/min or 1-50mL/min</p> <p>Accuracy: ±2%</p> <p>Tube: Polyvinylidene fluoride</p> <p>Piston and Liner: Ceramic</p> <p>Software Requirement: Window XP/7/8</p> <p>SPE Configurations:</p> <p>1 mL Syringe Compatible cartridges</p> <p>3 mL Syringe Compatible cartridges</p> <p>6 mL Syringe Compatible cartridges</p> <p>Electrical Voltage: 100-220V ±10%</p> <p>Frequency: 50-60Hz</p> <p>Power: 150W</p> <p>Operation Environment: Ambient Temperature 0-40°C</p> <p>Ambient Humidity: 20%-80%</p> <p>Relative Humidity: Non-condensing</p> <p>Dimension (h × w × d): 67 X 53 X 40cm</p> <p>Sample Rack (h × w × d): 7 X 25 X 5cm</p> <p>Make: UK/USA/Germany/Japan or Equivalent</p>	
18	Chloramphenicol	01Pack
19	Rose Bengal	01Pack

PHOTOCOPIER MACHINE

Type	Desktop	Qty.
Engine speed	Max. 20 to 23 CPM/PPM A4	01-No.
Paper size	Max. A3W, Min A5R	
Paper capacity	Standard: 250 sheets for 1 tray and 100 sheets multi bypass tray	
Original paper size	Max. A3	
Continues copy	Max. 999 copies	
Zoom range	25 to 400% (25 to 200% using DSPF) in 1% increments	
Color scanner	Built-in	
Network printer	Built-in	
Duplex copy	Built-in	

Computer System

Sr. No.	Name of items	Qty.
1.	Computer System Dell 5060 i5 Desktop or Equivalent Intel® Core™ i5-8600T (6 Cores/9MB/6T/up to 3.7 Ghz/35w); Supports windows 10/linux chipset intel® Q370 chipset Memory: storage 2.5 inch 1tb 7200rpm SATA hard disk drive+M.2.128 GB SATA class 20 solid state drive Ram 16GB 1x16gb 2666Mhz DDR4 Memory Grapics: integrated Intel® HD Graphics 610/630 LED spaces dell 24" LED P2412 or Equal Resolution: 1920x1080 Size: 24" widescreen 16:9	1
Sr. No.	Name of items	Qty.
1.	USB 16GB	1

Furniture items

Sr. No.	Name of items	Qty.
1.	<p>COMPUTER TABLE</p> <ul style="list-style-type: none">✓ Overall size: 36"x24"x30"✓ Structure made of top quality brand Formite lamination 20mm thick high compressed sheet (Embossed stamp).✓ All edges lipped with solid Dyar wood including top and tray bar 38x11mm Dyar wood.✓ Termite proof.✓ Rust Proof.✓ Export quality smooth riling for tray.✓ Finished with 1st quality polish top quality.✓ Complete finished in all aspects.✓ Guarantee one year including replacement of free parts on site.✓ Termite guarantee of 5 years.✓ Subject to approval of sample. <p>As per sample</p>	1.
2.	<p>Wooden Almirah Size: 7'x3 ½'x18"-16" Made of sheesham Vin Board all edges soled sheesham wood /molding gola front two cabinet four shelve sliding 5mm glass complete natural sprit polish finish as per sample</p>	
3.	Single sofa as per sample	4-Nos

TYRES FOR BUSES

Sr. No.	Name of items	Qty.
1.	Tyre + Tube + Flap Size: 900R20 Brand Ceat or Equivalent Type: Radial	06-Tyre set

WATER BOWSER

Sr. No.	Name of items		Qty.
1.	Capacity	4000 liter approximately single sheet	
	Material	Stainless steel	
	Side support	Stainless steel	
	length	8ft	
	Wight	5ft	
	Thickness of sheet	3mm	
	Frame size chassis	6x3 inchx5mm (MS)	
	Tyre size	Tyre+tube+flap ceat-7-50-16 new or Equivalent	04
	Wheel Rim	New	04
	Water pump	Honda WB20XT 2" /50mm Petrol	
	Pipe	20 fit	
	Work plate form and roof rack		

Annexure- A

Technical Proposal Covering Letter

To
Chairperson Purchase Committee

Lahore College for Women University,

Lahore

Dear Sir,

We are hereby submitting our Proposal, which includes the Technical Proposal and the Financial Proposal sealed in two separate envelopes. We have attached the **Technical Bid Form, Check List, Detailed Specifications** and the required **supporting documents** along with our Technical Bid.

Yours sincerely,

Authorized Signature

(In full and initials)

Name and Designation of Signatory Name of Firm Address

Annexure- B Check List

The bidder must attach this list along with the Bid

1.1. Packing of the Bid

S#	Description	YES/NO
1	Whether the Bid is submitted in Two Envelopes	
2	Technical Proposal <i>Envelope A</i>	
3	Financial Proposal <i>Envelope B</i>	
4	Whether both Technical and Financial Proposals are put into another Outer Envelope.	

1.2. SUBMISSION AND ARRANGEMENT OF SUPPORTING DOCUMENTS

The Bidder must provide all the Supporting Documents, number all the pages of supporting documents, provide the page information and arrange the documents in the following order:

Envelope A: Enclosures of Technical Proposal		Attached YES/NO	Page#
1	Check List		
2	Covering Letter		
3	Technical Bid Form duly signed and Stamped by the Bidder		
4	Specifications of quoted items on the Letter Head of the bidder		
5	Copy of Income Tax Registration Certificate		
6	Copy of Sales Tax Registration Certificate		
7	Affidavit/Undertaking on the Stamp Paper		
10	Two Supply Orders for supply of relevant items received in the past		
11	Proof of Sales of the Company		
12	List of Staff		
13	The specified catalogues / brochures of items quoted by the bidder		
Note: All the above documents and any other supporting document must be numbered and page number must be mentioned in the column specified for the purpose.			
Total Number of pages attached with the Technical Bid		_____ Pages	
14	Tender Document duly signed and stamped each page by the bidder must be attached at the end of the Technical Bid but numbering is not required for this document.		
Envelope B : Enclosures of Financial Proposal		Attached YES/No	Page #
1	Financial Proposal Covering Letter		
2	Price Schedule Form duly filled, signed and stamped by the bidder		
3	Bid Security in shape of CDR		

Annexure- C BID FORM

Technical Bid Form

S #	Particulars	Bidder's Response
A	Information about the Bidder	
	Name of the Company	
	Year of Incorporation/Registration	
	NTN Registration Number	
	GST Registration Number	
	Address	
	Office Telephone Number	
	Email Address of the Company	
	Name of Contact Person	
	Mobile No. of Contact Person	
	Email Address of Contact Person	

B- Past Performance (Detail of Top Two Supply Orders for supply of relevant items received in the past)						
S#	Name of Project	PO/LOA/ Contract No & Date	Value of Project in PKR	Item Detail	Customer (Name of Institution)	Customer Contact Person Name and Phone No.
1						
2						
Total Value of Five Projects (Rs)						

Annexure- D AFFIDAVIT/BIDDER'S UNDERTAKING ON THE STAMP PAPER

Ref: **Tender No. LCWU/Tender/2020-2021/04 published on PPRA on**

1. We have examined the Tender/Bid Document and we undertake to meet the requirements regarding supply of Items, warranty and services as required and are prescribed in the Tender Document.
2. It is certified that the information furnished here in and as per the document submitted is true and correct and nothing has been concealed or tampered with.
3. We have read the provisions of Tender/Bid Document and confirm that these are acceptable to us. We further declare that additional conditions, variations, deviations, if any, found in our response shall not be given effect to.
4. We agree to unconditionally accept all the terms and conditions set out in the Tender/Bid Document
5. We undertake, if our Bid is accepted, to supply the items within the delivery period mentioned in the Tender Document.
6. We understand that no document regarding evaluation criteria will be accepted after opening of the Technical Bids and we are bound to provide all the documentary proofs regarding evaluation criteria or any other supporting document at the time of opening of Technical Bids.
7. We agree that the Purchase Committee of Lahore College for Women University is not bound to accept the lowest or any of the bids received. We also agree that the Purchase Committee reserves the right in absolute sense to reject all the products/ services specified in the Bid Response without assigning any reason whatsoever under PPRA Rules 2014.
8. We also declare that our Company/Organization is not blacklisted by any of the Federal or Provincial Government in Pakistan.

[Name and Signatures of authorized Person along with stamp]

Annexure- E Financial Proposal Covering Letter
(to be attached with Financial Proposal)

To

Chairperson Purchase Committee

Lahore College for Women University,

Lahore

Dear Sir,

With Reference to your Tender No. LCWU/Tender/2020-2021/04 for *(title of the Tender)*.

Please find attached our Financial Proposal for the sum of Rs. *(insert amount in words and figures)* _.

This amount is inclusive of all taxes.

We have attached the Bid Security of amount Rs. *(insert amount in words and figures)*) having CNo.
along with our Financial Bid.

Yours sincerely,

Authorized Signature

Annexure-F**Contract Agreement Form**

THIS AGREEMENT made the *[day]* day of *[month]* *[year]* between *[Lahore College for Women University]* (hereinafter called "the University") of the one part and *[name and address of Supplier]* (hereinafter called "the Supplier") of the other part:

WHEREAS the University invited Tenders for certain goods and related services, viz, *[brief description of goods and related services]* and has accepted a Tender by the Supplier for the supply of those goods and related services in the sum of Rs. *[Contract Price in figures and in words]* (hereinafter called "the Contract Price").

NOW THEREFORE the parties hereby agree as follow:

- 1- The following documents attached shall be deemed to form and integral part of this Contract:
 - i- Tender/Bid Document
 - ii- Letter of Acceptance
- 2- The Terms and Conditions of Supply Order/Contract given in the Tender/Bid Document will be applicable.
- 3- The mutual rights and obligations of the University and the Supplier will be preserved in the light of Terms and Conditions mentioned in the Tender /Bid Document.

IN WITNESS where of the parties have caused this Contract to be executed in accordance with the laws of Pakistan on the day, month and year written above.

For Lahore College for Women University:

For the Supplier:

Signature

Print Name



LAHORE COLLEGE FOR WOMEN UNIVERSITY

Jail Road, Lahore – Pakistan. Tel: 042-99202014, 99203801-09, Ext: 212 Fax: 042-99203130

SECURITY REFUND FORM

Name of the vendor / supplier: _____
Name of items supplied: _____
Supply order number: _____
Date of delivery of items: _____
Gross amount of bill pre-audited by the Resident Auditor: _____
Security amount deducted from the bill: _____
Warrantee period: _____
Warrantee expired on: _____

VENDOR / SUPPLIER

FOR PURCHASE OFFICE USE ONLY:

Certified that the performance of the item supplied by the Vendor / Supplier remained satisfactory during warrantee period. As per request of the Vendor / Supplier, the security may be refunded.

CONVENOR PHYSICAL INSPECTION COMMITTEE: _____

HEAD OF DEPARTMENT: _____

DEPUTY DIRECTOR PURCHASE: _____

PURCHASE OFFICER: _____

FOR TREASURER OFFICE USE ONLY:

The amount of security for Rs. _____ Deducted from bill of the Vendor / Supplier, duly pre-audited by the Resident Auditor, was deposited into Security Account No. _____ on _____ vide cheque No. _____ dated _____ at NBP Jail Road, Lahore. The amount of security may be released to the Vendor / Supplier through cheque as per recommendation of the Purchase Department.

Submitted for approval please.

DEALING ASSISTANT

ADDITIONAL TREASURER

TREASURER

VICE CHANCELLOR

(For approval exceeding Rs.100,000/-)

Note: The Security shall be refunded to the Vendor / Supplier within six months of its becoming due. In case refund is not claimed, the security shall stand forfeited as un-claimed deposits.