

**DIRECTORATE  
OF  
TECHNICAL EDUCATION  
VOCATIONAL AND INDUSTRIAL TRAINING  
HIMACHAL PRADESH  
SUNDERNAGAR – 175018  
SHOPPING  
FOR  
APPLIED SCIENCES LAB EQUIPMENT  
CHEMISTRY GLASS APPARATUS AND MATERIAL**

**8<sup>th</sup> February 2021**

## SHOPPING FOR GOODS

### REQUEST FOR QUOTATION (RFQG)

**-- Note --**

- (i) *Shopping is a simplified procedure, used for low-value, readily available off-the-shelf goods. When considering Shopping, ADB should be satisfied that there are a sufficient number of local and/or foreign suppliers (a minimum of three) that can meet the requirements of the procurement and ensure a satisfactory level of price competition. The threshold for Shopping is currently set at \$100,000.*
- (ii) *Alternate texts for some paragraphs are provided. The Purchaser may select one option and delete the non-applicable option.*

**RFQ NO. GPR/05/2021****Date of Issue of Request: 08/02/2021****Project Title:** Himachal Pradesh Skill Development Project**Source of Funding:** ADB Funded: Loan No 3573-IND

**Contract Ref:** **Applied Sciences Lab Equipment: Chemistry Glass Apparatus and Material**  
**HPSDP-DoTE/WP/09**

To:

All Interested Bidders (Website Copy)

Sir/Madam:

1. **The Director, Technical Education, Vocational and Industrial Training, Himachal Pradesh, Sundernagar** (Purchaser) hereby requests you to submit price quotation(s) for the supply of the following items:

- (i) **Machinery and Equipment's/Goods related to 'Applied Sciences Lab Equipment Chemistry Glass Apparatus and Material' as per details attached as Annexure- A.**

*If you, however, have been associated with the firm that prepared the design, and specifications of the contract that is subject of this procurement, you shall be disqualified.*

To assist you in the preparation of your price quotation we enclose the necessary 'technical specifications and required quantities'.

2. You must quote for all the items under this request. Price quotations will be evaluated for all the items together and contract awarded to the firm offering the lowest evaluated total cost of all the items.
3. You shall submit **one original of the Price Quotation with the 'Form of Quotation', and clearly marked "Original"**. In addition, you shall also submit **one copy marked as "COPY"**. In case of any discrepancy between the Original and Copy, the original shall prevail. Your quotation in the attached format should be signed, sealed in an envelope and addressed to and delivered to the following address:

**Purchaser's Address:** The Director, Technical Education, Vocational and Industrial Training,  
Himachal Pradesh, Sundernagar, District Mandi – 175018

**Telephone:** 01907-266722, 266120, 266572. E-mail: techedu-hp@nic.in

4. Your quotation in duplicate and written in **English language**, should be accompanied by adequate technical documentation and catalogue(s) and other printed material or pertinent information (in English language) for each item quoted, including names and addresses of firms providing after-sales service facilities in India.
5. The deadline for receipt of your quotation(s) by the Purchaser at the address indicated in Paragraph 3 is: **25/02/2021 up to 2:15 PM** and shall be **opened at 02:30 PM** on the same day.
6. You shall submit only one set of quotations (Original & Duplicate copy) for the above items. Your quotation must be typed or written in indelible ink and shall be signed by you or your authorized representative. **Without a signature in your Form of Quotation, your quotation will not be considered further.**
7. Your quotation(s) should be submitted as per the following instructions and in accordance with the attached form of Contract. The attached Terms and Conditions of Supply is an integral part of the Contract.
  - (i) **PRICES:** The prices should be quoted for supply and delivery to **Govt. Polytechnic for Women, Rehan, District Kangra, Himachal Pradesh**. Prices shall be quoted in the currency (**Indian National Rupees**) of the Purchaser.
  - (ii) **EVALUATION OF QUOTATIONS:** Offers determined to be substantially responsive to the technical specifications will be evaluated by comparison of their prices. An offer is not substantially responsive if it contains material deviations or reservations to the terms, conditions, and specifications in this 'Request for Quotation', and it will not be considered further. The 'Purchaser' will evaluate and compare only the quotations determined to be substantially responsive. In evaluating the quotations, the 'Purchaser' will adjust for any arithmetical errors as follows:
    - (a) where there is a discrepancy between amounts in figures and in words, the amount in words will govern;
    - (b) Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern; and
    - (c) if a 'Supplier' refuses to accept the correction, his quotation will be rejected.

In addition to the quoted price, the evaluated price shall include 'Value Added Tax (VAT)/GST' in India.
  - (iii) **AWARD OF PURCHASE ORDER.** The award will be made to the bidder offering the lowest evaluated price and that meets the required standards of technical and financial capabilities. The successful bidder will sign a 'Contract' as per attached form of contract and terms and conditions of supply.
  - (iv) **VALIDITY OF THE OFFER:** Your quotation(s) should be valid for a period of Forty-five (45) days from the deadline for receipt of quotation(s) indicated in Paragraph-5 of this 'Request for Quotation'.
  - (v) **If you withdraw your quotation during the validity period and/or refuse to accept the award of a contract when and if awarded, then you will be excluded from the list of suppliers for the project for two years and the contract will be awarded to the next firm offering the lowest evaluated total cost of all the items (excluding your firm).**
8. Further information can be obtained from:
 

The Director, Technical Education, Vocational and Industrial Training,  
Himachal Pradesh, Sundernagar, District Mandi – 175018.  
Telephone: 01907-266572, 266722  
E-mail: [techedu-hp@nic.in](mailto:techedu-hp@nic.in); Website: <http://techedu.hp.gov.in>
9. The bidder whose quotation has been accepted will be notified of the award of contract through the 'Letter of Acceptance' issued by the 'Purchaser' within 45 days from the date of submission of quotation.
10. The 'Purchaser' intends to apply funds from the 'Asian Development Bank (ADB)' for eligible payments under the 'Purchase Order' resulting from this RFQ.

11. Under ADB's Anticorruption Policy bidders shall observe the highest standard of ethics during the procurement and execution of such contracts. ADB will reject a proposal for award, and will impose sanctions on parties involved, if it determines that the bidder recommended for award or any other party, has engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing, the 'Contract'. At the time of submission of your quotation, you should not be in ADB's sanctions list.
12. Please Confirm by e-mail the receipt of this request and whether you will submit the price quotation(s) or not.

Director  
Technical Education  
Vocational and Industrial Training  
Himachal Pradesh, Sundernagar

**FORM OF QUOTATION**

(All bidders must fill &amp; Sign this form)

To: \_\_\_\_\_ (Purchaser's Name)  
 \_\_\_\_\_ (Purchaser's Address)  
 \_\_\_\_\_

We offer to execute the \_\_\_\_\_ (name and number of Contract) in accordance with the Conditions of Contract accompanying this Quotation for the Contract Price of \_\_\_\_\_ (amount in words and numbers) (\_\_\_\_\_) (name of currency) \_\_\_\_\_. We propose to complete the delivery of Goods described in the Contract within the following Delivery Time from the Date of Signing of the Contract.

Prices and Schedules for Supply

S. No.	Item Name	Quantity	Unit Price	Total Price	Delivery Time
1.					
2.					
	<u>Spare Parts</u>	}			
	<u>Tools and Accessories</u>	}			
	<u>Manuals</u>	}			
	<u>Maintenance Requirements</u>	}			

} Specify, if applicable.

This Quotation and your written acceptance will constitute a binding Contract between us. We understand that you are not bound to accept the lowest or any Quotation you receive.

We hereby confirm that this Quotation complies with the Validity of the Offer and Warranty conditions imposed by the Request for Quotation document and the Terms and Conditions of Supply, respectively.

We have not been associated with the firm that prepared the design and specifications of the contract that is subject of this request for quotation.

We are not in the ADB sanctions list.

Authorized Signature: \_\_\_\_\_

Name and Title of Signatory \_\_\_\_\_

Name of Supplier: \_\_\_\_\_

Address : \_\_\_\_\_

Phone Number : \_\_\_\_\_

Fax Number, if any \_\_\_\_\_

Email address (optional) \_\_\_\_\_

1. The Bidder must accomplish the Form of Quotation on its letterhead clearly showing the bidder's complete name and address.
2. The bidder must submit copy of Registration Certificate, GST Registration, PAN Card of the firm with his quotation.

**FORM OF CONTRACT**

THIS AGREEMENT number \_\_\_\_\_ made on \_\_\_\_\_, \_\_\_\_ 201\_, between  
 \_\_\_\_\_ (hereinafter called "the Purchaser") on the one part and  
 \_\_\_\_\_ (hereinafter called "the Supplier") on the other part.

WHEREAS the Purchaser has requested for quotation for \_\_\_\_\_ (description of goods) to be supplied by Supplier, viz. Contract \_\_\_\_\_, (hereinafter called "Contract") and has accepted the Quotation by the Supplier for the supply of goods under Contract at the sum of \_\_\_\_\_ (\_\_\_\_\_) hereinafter called "the Contract Price".

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. The following documents shall be deemed to form and be read and construed as part of this agreement, viz:
  - a) Form of Quotation; Terms and Conditions of Supply, Technical Specifications;
  - b) Addendum (if applicable);
2. Taking into account payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby concludes an Agreement with the Purchaser to execute and complete the supply of goods under the Contract and remedy any defects therein in conformity with the provisions of the Contract.
3. The Purchaser hereby covenants to pay, in consideration of the acceptance of Contract, supply and delivery of the goods and remedying of defects therein, the Contract Price in accordance with Payment Conditions prescribed by the Contract.

IN WITNESS whereof the parties hereto have executed the Contract under the **Laws of India** on the date indicated above.

**Signature and seal of the Purchaser:**  
 For and on behalf of

**Signature and seal of the Supplier:**  
 For and on behalf of

\_\_\_\_\_  
 Name of Authorized Representative

\_\_\_\_\_  
 Name of Authorized Representative

## TERMS AND CONDITIONS OF SUPPLY

**Project Name:** Himachal Pradesh Skill Development Project

**Purchaser:** The Director, Technical Education, Vocational and Industrial Training,  
Himachal Pradesh, Sundernagar, District Mandi – 175018

Package name: Embroidery and Sewing Technology related items

Package No. HPSPDP-DOTE/16

1. Schedules for Supply: Attached as **Annexure - A**
  
2. Fixed Price: The prices indicated in the Form of Quotation are firm and fixed and not subject to any adjustment during contract performance.
  
3. Delivery Schedule: The delivery should be completed as per above schedule but not exceeding 180 days from the date of signing of contract.
  
4. Insurance: The Goods supplied under the Contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery. The insurance shall be in an amount equal to 110 percent of the value of the Goods on "All risks" basis.
  
5. Applicable Law: The Contract shall be interpreted in accordance with the laws of the Purchaser's country.
  
6. Resolution of Disputes: The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute between them under or in connection with the Contract. In the case of a dispute between the Purchaser and the Supplier, the dispute shall be settled in accordance with the provisions of the **Laws of India within the jurisdiction of the Sundernagar (HP) Court.**
  
7. Delivery and Documents: Upon delivery, the Supplier shall provide the following documents to the Purchaser:
  - (i) copies of the Supplier's invoice showing goods' description, quantity, unit price, and total amount;
  - (ii) manufacturer's or supplier's warranty certificate; and
  - (iii) certificate of origin.

If goods are coming by courier, supplier shall also provide prior to delivery, copies of documents that will enable Purchaser to receive the goods. The above documents shall be received by the Purchaser at least one week before arrival of the goods and, if not received, the Supplier shall be responsible for any consequent expenses.
  
8. Payment: Payment of the contract price shall be made in the following manner:
  - a) **80% upon receipt by the Purchaser of the delivered goods on site in accordance with the contract;**
  - b) **10% upon acceptance of the delivered goods by the Purchaser, and**
  - c) **10% will be kept as performance security and shall be released after satisfactory Performance Certificate from the Principal of the user institute i.e. Govt. Polytechnic for women Rehan, District Kangra, Himachal Pradesh after completion of warranty period of 365 days.**
  
9. Warranty: Goods offered should be covered by manufacturer's warranty for at least 365 Days from the date of delivery to the Purchaser.
  
10. Defects: All defects will be corrected by the Supplier without any cost to the Purchaser within 30 day from the date of notice by Purchaser. The name and address of service facility where the defects are to be corrected by the supplier within the warranty period are:

Facility: **Govt. Polytechnic for women Rehan.**  
 Address: **Govt. Polytechnic for women Rehan,  
 District Kangra, Himachal Pradesh**

11. Force Majeure: The supplier shall not be liable for penalties or termination for default if and to the extent that it's delays in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

For purposes of this clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but not restricted to, act of Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by Force Majeure event.

12. Required Technical Specifications: (with attachments as necessary)

- (i) General Description
- (ii) Specific details and technical standards
- (iii) Performance Parameters

Supplier confirms compliance with above specifications.

13. Failure to Perform: The Purchaser may cancel the 'Agreement' if the 'Supplier' fails to deliver the Goods, in accordance with the above terms and conditions, in spite of a 14-day notice given by the 'Purchaser', without incurring any liability to the 'Supplier'.

NAME OF SUPPLIER: \_\_\_\_\_

Authorized Signature: \_\_\_\_\_

Place: \_\_\_\_\_

Date: \_\_\_\_\_



**Annexure A****Schedule of supply****Contents**

1. List of Goods and Related Services
2. Delivery and Completion Schedule
3. Technical Specifications
4. Drawings

# 1.List of Goods and Related Services

**Package Name: Supply of Applied Science Lab Equipment-Applied Chemistry: Glass Apparatus and Material for Government Polytechnic (Women), Rehan Distt. Kangra HP to enhance technical and vocational skills among the youth of Himachal Pradesh. HPSDP/DOPE/WP/09; RFQ No. GPR/05/2021**

Package Name: Applied Sciences Lab Equipment-Applied Chemistry : Glass Apparatus and Material								Delivery Time (in days): not more than 180		
Item No	Name of Goods or Related Services	Description		Unit of Measurement	Quantity	Unit Price INR	Total price per item INR	Sales and other taxes per item	Total Price (Including GST)	Remarks(Please mention Page Number of detailed information brochure having make and model no.)
1	2	3		4	5	6	7=5*6	8=7*@GST%	9=7+8	
1	Beaker, Tall Form, With Spout (Borosilicate's)	Capacity in ml	Approx. O.DX Height in mm	No.						
	i)	50	38 x 70	No.	20					
	ii)	100	48 x 80	No.	20					
	iii)	150	54 X 95	No.	20					
	iv)	250	60 x 120	No.	20					
	v)	500	77 x 137	No.	10					
	vi)	1000	95 x 180	No.	10					
2	Bottles Reagent(Borosilicate's), Plain Narrow Mouth, Graduated	Interchangeable Flat Head Stopper. Capacity in ml	Approx.O. DX Height in mm	No.						
	i)	250	70 x 120	No.	15					
	ii)	500	86 x 180	No.	15					

	iii)	1000	100 x 230	No.	7					
	iv)	2000	136 x 255	No.	5					
3	<b>Bottles, Wash, LDPE Plastic, Squeeze type, Screw Cap,</b>	<b>Capacity in ml</b>	<b>Approx. O.DX Height in mm</b>	No.						
	i)	500	75X 167	No.	25					
4(a)	<b>(Borosilicate's) Burettes Boroflo, Fitted With Boroflo GP (General Purpose),</b>	<b>Capacity in mL</b>	<b>Graduation Interval (ml)</b>	No.						
		50	0.1	No.	30					
4(b)	<b>Burettes, Straight Bore Stopcock</b>	50	0.1	No.	30					
5	<b>China dish</b>	<b>Material : china clay</b>	<b>Sizes : 75mm</b>	No.	20					
		<b>Color : White</b>	<b>:100 mm</b>	No.	20					
6(a)	<b>Cylinders, Graduated, Single Metric Scale(Borosilicate's)</b>	<b>Capacity in mL</b>	<b>Graduation Interval (ml)</b>	No.						
	i)	5	0.1	No.	10					
	ii)	10	0.2	No.	20					
	iii)	25	0.5	No.	15					
	iv)	50	0.1	No.	10					
	v)	100	0.1	No.	10					
6(b)	<b>Cylinders, Graduated, Single Metric Scale, with Pour Out, with</b>	<b>Capacity in mL</b>	<b>Graduation Interval (ml)</b>							

	<b>hexagonal Base(borosilicate's)</b>									
	i)	250	2	No.	8					
	ii)	500	5	No.	8					
	iii)	1000	10	No.	5					
7	<b>Desiccators(borosilicate's)</b>	<b>Approx. ID Ground Flange mm = 100</b>		No.	15					
8	<b>Dropper</b>	<b>Borosilicate Glass , capacity 10 ml with rubber holder</b>		No.	20					
9(a)	<b>Flasks, Erlenmeyer, Conical, Narrow Mouth( Neck O.D. Mm =22)</b>	<b>capacity ml</b>	<b>Approx. O.D. x Height mm</b>							
	i)	150	64 x 105	No.	25					
9(b)	<b>Flasks, Erlenmeyer, Conical, Narrow Mouth( Neck O.D. Mm =34)</b>	250	85 x 145	No.	25					
10	<b>Flasks, Iodine Determination</b>	<b>capacity ml</b>	<b>Interchangeable Joint size</b>							
	i)	100	24 / 29	No.	25					
	ii)	250	24 / 29	No.	25					
11	<b>Flasks, Volumetric(borosilicate's)</b>	<b>Capacity ml</b>	<b>Tolerance <math>\pm</math> ml</b>							
	i)	50	0.06	No.	10					
	ii)	100	0.1	No.	15					
	iii)	250	0.15	No.	15					
	iv)	500	0.25	No.	20					

	v)	1000	0.4	No.	20					
	vi)	2000	0.6	No.	10					
12	<b>Filter paper (ordinary)</b>	Grade 602 h qualitative <b>filter paper</b> has the <b>pore size</b> of 2 $\mu\text{m}$ . Size: 12.5cm (set of 100 RIMS)		set	30					
13	<b>Whatman qualitative ashless filter paper</b>	Liquid Filtration Material: Fibre Round Shape:		No.	20					
14	<b>Funnels, Plain, 60° Angle, Short Stem (borosilicate's)</b>	1) Made 3.3 borosilicate glass, USP Type I	3) Diameter mm = 75	No.	30					
		2) Designed with a 60° bowl angle to ensure precise fitting of the filter paper	4) Diameter mm = 100	No.	30					
15	<b>Pipettes, Transfer, Volumetric (borosilicate's)</b>	<b>Capacity ml</b>	<b>Tolerance <math>\pm</math> ml</b>							
	i)	10	0.02	No.	30					
	ii)	20	0.03	No.	30					
16	<b>Pestle and Mortar</b>	Material : Ceramic and Wooden Handle Pestle Mortar Diameter = 4.5 Inch		No.	3					
17	<b>Stirrer</b>	Made of polished 3.3 borosilicate glass	Approx. O.D. x Length mm = 9 x 255	No.	50					
18	<b>Watch Glasses, Borosil S - Line</b>	Made of soda glass								
		Capacity ml								
	i)	100		No.	30					
	ii)	150		No.	30					

19	<b>TONGS FOR BEAKERS</b>	Made of stainless steel								
		Provided with silicon sleeves or in fibre glass yarn to resist direct flame	Size Inches =10	No.	25					
20	<b>TONGS FOR CRUCIBLE</b>	Made of Stainless Steel								
		Crucible tong with bow stainless steel	Size Inches =12	No	25					
21	<b>SPATULAS</b>	Made of stainless steel grade 202								
		One end flat one spooned	Size Inches =6	No.	20					
22	<b>Silica Crucible with lid</b>	Material : Silica ,Crucible is glazed inside and outside.	50ml capacity	No.	30					
		Highly resistant to alkalis and hot temperatures upto 1000 °C	Outside diameter 55mm, 42mm height							
23	<b>Burette Stand</b>	Material : Stainless Steel	Length Width 16 Inch 60 cm	No.	35					
24	<b>Test Tubes</b>	Test tubes 4x1/2" (6 pcs) and Borosilicate Glass with Rim		No.	100					
25	<b>Test tube brush</b>	Marking Colour white	12mm Diameter	No.	30					
		Material Type nylon	300mm							
26	<b>Tripod Stand</b>	Set of Triangular top, made of Mild Steel wire. Lower end of legs	Size : 6" x 4", 8" x 4", 8" x 5"	set	20					

		covered with plastic cap to avoid scratching the work surface								
<b>Total</b>										

	<b>Total price per item (INR)</b>	<b>Total Price INR (Including GST)</b>
	<b>(7= 5*6)</b>	<b>(9=7+8)</b>
<b>Grand Total</b>		
<b>Grand Total (Without Tax)in Words: -</b>		
<b>Grand Total (With Tax)in Words: -</b>		

## 2. Delivery and Completion Schedule

The delivery period shall start as of date of Signing the Contract

Item No	Description of Goods or Related Services	Delivery Schedule (Duration)	Location	Required Arrival Date of Goods or Completion Date for Related Services
	<b>Package Name: - Applied Science Lab Equipment-Applied Chemistry: Glass Apparatus and Material</b> <b>Package no.: - HPSPD-DoTE/WP/09</b>	Within 180 Days from the Signing of the contract.	<b>Government Polytechnic(Women), Rehan District-Kangra, Himachal Pradesh</b>	Within 180 Days from the Signing of the contract.



### 3. Technical Specifications

**Package Name: - Applied Sciences Lab Equipment-Applied Chemistry: Glass Apparatus and Material**

Item No.	Name of Goods or Related Services	Technical Specifications of Item and/or Bureau of Indian Standards (BIS) (if applicable) reference		Features	Accessories	Spare parts	Documents	Installation & Training	Warranty of Equipmen t/parts
1	Beaker, Tall Form, With Spout (Borosilicate's )	Capacity in ml	Approx. O.D X Height in mm	standard	standard	standard	Manuals to be supplied with equipment's	To be supplied and installed at the Govt. Polytechnic (Women), Rehan Distt. Kangra H.P.	standard
	i)	50	38 x 70						
	ii)	100	48 x 80						
	iii)	150	54 X 95						
	iv)	250	60 x 120						
	v)	500	77 x 137						
	vi)	1000	95 x 180						
2	Bottles Reagent(Boro silicate's), Plain Narrow Mouth, Graduated	Interchangeable Flat Head Stopper. Capacity in ml	Approx. O.DX Height in mm	standard	Neck stopper( size)	standard	Manuals to be supplied with equipment's	--do--	standard
	i)	250	70 x 120						
	ii)	500	86 x 180						
					19/26				
					24/29				

	iii)	1000	100 x 230		29 / 32				
	iv)	2000	136 x 255		29 / 32				
3	<b>Bottles, Wash, LDPE Plastic, Squeeze type, Screw Cap,</b>	<b>Capacity in ml</b>	<b>Approx. O.DX Height in mm</b>	standard	Fitted with stoppers and Delivery Tubes	standard	Manuals to be supplied with equipment's	--do-	standard
	i)	500	75X 167						
4(a)	<b>(Borosilicate's ) Burettes BoroFlo, Fitted With <u>BoroFlo</u> GP (General Purpose),</b>	<b>Capacity in mL</b>	<b>Graduation Interval (ml)</b>	standard	ScrewThread with PTFE Keys	standard	Manuals to be supplied with equipment's	--do-	standard
		50	0.1						
4(b)	<b>Burettes, <u>Straight Bore</u> <u>Stopcock</u></b>	50	0.1		PTFE Key Stopcock		Manuals to be supplied with equipment's	--do-	standard
5	<b>China dish</b>	<b>Material : china clay</b>	<b>Sizes : 75mm</b>	standard		standard	Manuals to be supplied with equipment's	--do-	standard
		<b>Color : White</b>	<b>:100 mm</b>		standard	standard			

6(a)	<b>Cylinders, Graduated, Single Metric Scale(Borosili cate's)</b>	<b>Capacity in mL</b>	<b>Graduation Interval (ml)</b>		Penny Head Interchangeab le Stopper with Hexagonal base with neck stopper of (sizes)		Manuals to be supplied with equipment's	--do-	standard
	i)	5	0.1	standard	10 / 15	standard			
	ii)	10	0.2		10 / 15				
	iii)	25	0.5		14 / 15				
	iv)	50	0.1		14 / 15				
	v)	100	0.1		19 / 20				
6(b)	<b>Cylinders, Graduated, Single Metric Scale, with Pour Out, with hexagonal Base(borosilic ate's)</b>	<b>Capacity in mL</b>	<b>Graduation Interval (ml)</b>				Manuals to be supplied with equipment's	--do-	
	i)	250	2	standard	standard	standard			

	ii)	500	5						
	iii)	1000	10						
7	<b>Desiccators(borosilicate's)</b>	<b>Approx. ID Ground Flange mm = 100</b>		standard	with glass Cover and Porcelain Plate, glass knob	standard	Manuals to be supplied with equipment's	--do-	standard
8	<b>Dropper</b>	<b>Borosilicate Glass , capacity 10 ml with rubber holder</b>		standard	standard	standard	Manuals to be supplied with equipment's	--do-	standard
9(a)	<b>Flasks, Erlenmeyer, Conical, Narrow Mouth( Neck O.D. Mm =22)</b>	<b>capacity ml</b>	<b>Approx. O.D. x Height mm</b>	standard	standard	standard	Manuals to be supplied with equipment's	--do-	standard
	i)	150	64 x 105						
9(b)	<b>Flasks, Erlenmeyer, Conical, Narrow Mouth( Neck O.D. Mm =34)</b>	250	85 x 145	standard	standard	standard	Manuals to be supplied with equipment's	--do-	standard
10	<b>Flasks, Iodine Determination</b>	<b>capacity ml</b>	<b>Interchangeable Joint size</b>	standard	Interchangeable Solid Glass Stopper,	standard	Manuals to be supplied with equipment's	--do-	standard

	i)	100	24 / 29						
	ii)	250	24 / 29						
11	<b>Flasks, Volumetric (borosilicate's)</b>	<b>Capacity ml</b>	<b>Tolerance <math>\pm</math> ml</b>		Interchangeable Solid Glass Stopper having (sizes)		Manuals to be supplied with equipment's	--do-	standard
	i)	50	0.06		,10/15				
	ii)	100	0.1		14 / 15				
	iii)	250	0.15	standard	14 / 15	standard			
	iv)	500	0.25		19 / 20				
	v)	1000	0.4		19 / 20				
	vi)	2000	0.6		24 / 25				
12	<b>Filter paper (ordinary)</b>	Grade 602 h qualitative <b>filter paper</b> has the <b>pore size</b> of 2 $\mu\text{m}$ . Size: 12.5cm		standard	standard	standard	Manuals to be supplied with equipment's	--do-	standard

		(PACK OF 100 RIMS)							
13	<b>Whatman qualitative ashless filter paper</b>	Liquid Filtration Material: Fibre Shape: Round		standard	standard	standard	Manuals to be supplied with equipment's	--do-	standard
14	<b>Funnels, Plain, 60° Angle, Short Stem(borosilicate's)</b>	1)Made 3.3 borosilicate glass, USP Type I	3) Diameter mm = 75	standard	standard	standard	Manuals to be supplied with equipment's	--do-	standard
		2)Designed with a 60° bowl angle to ensure precise fitting of the filter paper	4) Diameter mm = 100						
15	<b>Pipettes, Transfer, Volumetric(borosilicate's)</b>	<b>Capacity ml</b>	<b>Tolerance ± ml</b>	standard	standard	standard	Manuals to be supplied with equipment's	--do-	standard
	i)	10	0.02						
	ii)	20	0.03						
16	<b>Pestle and Mortar</b>	Material : Ceramic and Wooden Handle Pestle Mortar Diameter =4.5 Inch		standard	standard	standard	Manuals to be supplied with equipment's	--do-	standard

17	<b>Stirrer</b>	Made of polished 3.3 borosilicate glass	Approx. O.D. x Length mm = 9 x 255	standard	standard	standard	Manuals to be supplied with equipment's	--do-	standard
18	<b>Watch Glasses, Borosil S - Line</b>	Made of soda glass		standard	standard	standard	Manuals to be supplied with equipment's	--do-	standard
		Capacity ml							
	i)	100							
	ii)	150							
19	<b>TONGS FOR BEAKERS</b>	Made of stainless steel		standard	standard	standard	Manuals to be supplied with equipment's	--do-	standard
		Provided with silicon sleeves or in fibre glass yarn to resist direct flame	Size Inches =10						
20	<b>TONGS FOR CRUCIBLE</b>	Made of Stainless Steel		standard	standard	standard	Manuals to be supplied with equipment's	--do-	standard
		Crucible tong with bow stainless steel	Size Inches =12						
21	<b>SPATULAS</b>	Made of stainless steel grade 202		standard	standard	standard	Manuals to be supplied with	--do-	standard

		One end flat one spooned	Size Inches =6				equipment's		
22	<b>Silica Crucible with lid</b>	Material : Silica ,Crucible is glazed inside and outside.	50ml capacity	standard	standard	standard	Manuals to be supplied with equipment's	--do-	standard
		Highly resistant to alkalis and hot temperatures upto 1000 °C	Outside diameter 55mm, 42mm height						
23	<b>Burette Stand</b>	Material : Stainless Steel	Length 16 Inch 60 cm	standard	Retort , clamp	standard	Manuals to be supplied with equipment's	--do-	standard
24	<b>Test Tubes</b>	Test tubes 4x1/2" (6 pcs) and Borosilicate Glass with Rim		standard	Plastic Test Tube Stand (Blue) ,Wooden Handle Chromium Plated Test Tube Holder	standard	Manuals to be supplied with equipment's	--do-	standard
25	<b>Test tube brush</b>	Marking Colour white	12mm Diameter	standard	standard	standard	Manuals to be supplied with equipment's	--do-	standard
		Material Type nylon	300mm						
26	<b>Tripod Stand</b>	Triangular top, made of Mild Steel wire. Lower end of legs covered with plastic cap to avoid scratching the work surface	Size : 6" x 4", 8" x 4", 8" x 5"	standard	standard	standard	Manuals to be supplied with equipment's	--do-	standard



## **4. Drawings**

*Not Applicable*