

**GOVERNMENT OF RAJASTHAN  
OFFICE OF JOINT DIRECTOR AGRICULTURE (BOTANY),  
SEED TESTING LABORATORY, DURGAPURA, JAIPUR, (RAJASTHAN)**

No: STL/purchase/wp/2009-2010/1075-76

Date: 29-12-2009

**OPEN TENDER NOTICE**

Sealed tenders in technical bid & financial bid format are invited for the supply and installation of the following laboratory equipments from Manufacturers and their Authorized Distributors / Dealers for the use in Seed Testing Laboratories. Both Bids must be in separate envelopes and these two envelopes should be kept in outer envelope. **Item wise separate offers should be given.**

ITEM No.	NAME OF THE INSTRUMENTS	QTY	EARNEST MONEY	APPROX. COST IN RS.	DELIVERY PERIOD
<b>Equipments for DNA Fingerprinting</b>					
1.	Thermo cycler (PCR)	1	5000	250000	Within 30 Days From the date of Supply order
2.	Dual Poly acrylamide Vertical Gel Electrophoresis with Power Supply etc.	1	8000	400000	Within 30 Days From the date of Supply order
3.	Gel Documentation System with Dark hood & UV Transilluminator etc.	1	9000	450000	Within 30 Days From the date of Supply order
4.	Deep Freezer	1	2000	100000	Within 30 Days From the date of Supply order
5.	Ice Making machine	1	2000	100000	Within 30 Days From the date of Supply order
6.	Refrigerated High Speed Centrifuge with Rotors	1	4000	200000	Within 30 Days From the date of Supply order
7.	Micro Pipettes with stands	1	2000	100000	Within 30 Days From the date of Supply order
8.	UV visible double beam spectro photometer	1	6000	300000	Within 30 Days From the date of Supply order
<b>Equipments for BT cotton testing</b>					
9.	Elisa Reader with washer	2	20000	1000000	Within 30 Days From the date of Supply order
10.	BT Seed Grinder	2	10000	500000	Within 30 Days From the date of Supply order
11.	Cooling Micro Centrifuge	2	6000	300000	Within 30 Days From the date of Supply order
<b>Other Item</b>					
12	Germination Paper	15 qtl	4000	200000	Within 30 Days From the date of Supply order

**NOTE:**

1. Tender cost is Rs 100/- only.
2. SSI Units are exempted from tender fees for the items which they are registered with Director of industries, Rajasthan. They have to produce copy of competency and SSI Registration Certificate duly attested for exemption of tender cost.
3. If the tender is desired by post Rs 50.00 shall be charged extra from all the applications in addition to tender fees.

4. Tender Form with detailed Technical specifications and Terms & Conditions can be obtained from this office in office hours on or before dated 01-02-2010 up to 12.00 PM by depositing tender fees as above in the name of Jt. Director Agriculture (Botany), Seed Testing Laboratory, Durgapura, Jaipur. Tenders shall be Received up to date 01-02-2010 by 2.00 PM And these tenders (Only Technical Bids) shall be opened on the same day at 3.30 PM in the presence of Tenderers if any.
5. Financial Bids shall be opened of those tenders whose technical bids are found fit, financial bid opening date will be intimated to the successful bidders.
6. Tender From with detailed specification and terms & conditions may also be downloaded from Website of Department of Public Relation & Information, Rajasthan [www.dipronline.org](http://www.dipronline.org) & department website [www.rajasthankrishi.gov.in](http://www.rajasthankrishi.gov.in) in such case Tender Fees by Draft, Bankers Cheque, Cash shall be deposited and enclosed separately with Tender otherwise the tender will not be considered.

**JOINT DIRECTOR AGRICULTURE (BOTANY),  
SEED TESTING LABOTATORY,  
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**TENDER FORM**

1. \_\_\_\_\_(Name of the article for which the tender is submitted.)
2. Name and address of the firm submitted the Tender.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. Addressed to the joint Director Agriculture (Botany), Seed Testing Laboratory, Durgapura, Jaipur (Rajasthan)
4. Reference: Tender Notice No \_\_\_\_\_
5. The tender form fees Rs 100/- / Rs 50/- has been deposited vide receipt No \_\_\_\_\_  
\_\_\_\_\_ Dated \_\_\_\_\_ vide crossed P.O/DD/BC No \_\_\_\_\_  
\_\_\_\_\_ dated \_\_\_\_\_
6. We agree to abide by all tender terms & conditions mentioned in tender notice No \_\_\_\_\_ date \_\_\_\_\_ issued by the department and agree to further terms and conditions of the said tender notice given in attached sheets ( all the pages of which has been signed with Stamp by in token of our acceptance of the terms mentioned therein.)
7. Goods will be delivered in stipulated delivery period and at desired destination place up to stores as mentioned in schedule 'A'.
8. The rates quoted are valid up to 31-3-2010 The period can be extended with mutual consent.
9. Demand Draft / Bankers Cheque No \_\_\_\_\_ dated \_\_\_\_\_ drawn on (Name of Bank) \_\_\_\_\_, cash receipt No \_\_\_\_\_ dated \_\_\_\_\_ for Rs \_\_\_\_\_ to cover Earnest Money is enclosed.
10. Sales Tax Registration & Sales Tax Clearance Certificate are submitted herewith.
11. Declaration of Manufacturer / Authorized Distributor / Authorized Dealer is also enclosed.

**Signature of Tenderer  
With Rubber Stamp**

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**SPECIAL TERMS & CONDITIONS TO BE FOLLOWED STRICTLY AND CAREFULLY, FAILING WHICH TENDER WILL BE REJECTED FOR THE TENDER OF INSTRUMENTS DUE ON AT**

1. All the following documents necessarily to be enclosed with Tender Documents:
  - a. Earnest Money deposit.
  - b. Sales Tax / VAT Registration & Sales Tax / VAT Clearance Certificate.
  - c. Original Tender Document issued by the department duly signed & filled in all respect.
  - d. Original Printed Literature / Catalog of scientific instruments offered. Photocopy shall not be considered.
  - e. Undertaking by Principal Manufacture as per Schedule 'B' Performa enclosed with tender document should be typed and signed by Principal Manufacture on his Original letter pad.
2. The tender will have to provide details in technical bid regarding strength of experienced service personal & application support in India. Tender should ensure that all quoted Indian instruments should be of ISO 9000 series certified manufacturer only otherwise they will not be considered.
3. The tender will provide detailed list of installation with model Nos. in premier institutes / companies in India along with end user name, contact details (Tel No) etc in technical Bid.
4. Technical Bid envelope should contain following:
  - a. On the Top of Technical Bid Envelope S.No. Name of item, date of opening should be mentioned, name of the firm also be written on the envelope itself.
  - b. This envelope should contain the required Earnest Money as per Schedule 'A' in the prescribed form as per terms & conditions. In case of tender document downloaded from website the tender fees in form of D/D as per NIT should be enclosed separately.
  - c. All the necessary required documents are to be submitted as desired at S.No.1 & 2.
  - d. Enclose users list along with contact Number.
5. Financial Bid envelope should contain following:
  - a. On the Top of financial Bid Envelope S.No. Name of item, Due Date of tender should be mentioned, name of the firm should be also being written on the envelope itself.
  - b. Financial Bid Format duly filled, signed & sealed.
  - c. For each item rates should be quoted in a separate envelope.
6. Tender should quote only one model against one tender document. If tender wants to quote alternate model for the same instrument than he will have to purchase new tender for the same and separate Earnest money will have to be deposited along with separate tender.

7. If any other accessory is required for smooth running of our required instruments documents other than the mentioned accessories. / consumables is specification sheet than tender should show separately in Technical bid and prices should be included in the envelope in Financial Bid, otherwise during the time of installation any other item is required by the tenderer for smooth function & running of the instruments than it will have to be arranged by the tenderer on his own cost and department will be not responsible for it.
8. In case of Thermo cycler PCR, Polyacrylamide Vertical Gel Electrophoresis with Power supply, Gel Documentation System with UV Transilluminator & Dark Hood, Elisa reader and washer, centrifuge, deep freezer tenders should quote AMC Charges for non comprehensive AMC for 7 years after the expiry of Guarantee Period for above instruments and for Centrifuge machine & Ice making machine in Financial Bid otherwise the tender will not be considered.  
Terms for AMC:
  - a. Visits to be made as & when required subject to the maximum extent of 9 year, besides 6 in year visits if any extra visit is required charges will be paid by the deptt.
  - b. Deposited security deposit against Guarantee period shall be refunded in two installments 1<sup>st</sup> that is 60% of the deposited security shall be refunded after successful completion of guarantee period Remaining 40% amount of the deposited security be refunded after successful completion of AMC period. It shall be treated as AMC Security deposit.
  - c. If the instrument is not attended within seven days from the date of intimation in writing by the deptt to the supplier than penalty @Rs500/- per day will be recovered from the AMC Charges payable.
  - d. All the equipment mentioned at point no. 8 should be supported with the user list along with contact no.**
  - e. List of spare parts with indicative cost should be supplied by the tenderer.
9. Successful bidder will have to provide and arrange Fifteen Days Free Training to our four Technical members immediately after the issue of the order at the successful tenderers application lab.
10. Besides above training one week free training to our other technical staff will have to be provided by the successful tenderer at lab during the time of installation.
11. Bidder's technical expert will help initially in analyzing up to 100/- sample's of BT cotton and 100 sample's of DNA finger printing test
12. Two year comprehensive Guarantee with spare parts for all the instruments to be given by the tender & in this respect submit an Affidavit on Rs 10/- Non Judicial Stamp paper, otherwise the tender will not be considered.
13. Only Rates to be quoted in enclosed Financial Bid Format in Indian Currency (Rupees) only. Rates should be in packing unit including required accessories. If splitted prices are found the tender will not be considered. Rates quoted should be FOR at our lab including Taxes, Duties Clearance, and all inward expenses as Cartage freight etc. except VAT / CST which should be shown separately.

14. Tenderer will have to provide Technical compliance sheet for each point wise along with details mentioned against each point for the relevant enclosed literature Page No or Para No. if offered technical specifications of the model are better than the required specification the model will be treated as per specification.
15. (1) Comparison of rates of firms outside and those in Rajasthan, While tabulating the tenders of those firms which are not entitled to price preference, the element of Rajasthan Sales Tax shall be excluded from the rates quoted by the firms of Rajasthan and the element of Central Sales Tax shall be included in the rates of firms outside Rajasthan. In such case if the price of any commodity being offered for sale by firms in Rajasthan is the same or lower excluding element of Rajasthan Sale Tax than the price of firm out side Rajasthan (including element of Central Sale Tax), the commodity shall be purchased from the firm in Rajasthan.  
  
(2) Financial evaluation will be on the basis of rates of equipments / machines with average A.M.C. Rates.
16. Payment: 75% payment will be made after receipt of equipments in satisfactory conditions at consignees store rest 25% payment will be released after the satisfactory successful installation, Demonstration & training to staff and successful report of 100 sample analyzed report by the successful bidder.
17. Delivery should be completed within 30 days from the that of supply order at the respective labs and after this period delivery will not be accepted under any circumstances.
18. Financial Bids shall be opened of those tenders whose technical bids are found fit, financial bid opening date will be intimated to the successful bidders.
19. **The equipment should be supported along with standard voltage stabilizer giving less than one present fluctuation.**
20. **The bidder should be the exclusive dealer and should produce authorization document from the manufacture towards marking, servicing and AMC etc for the product in the region.**

**In absence of the above or wrongly the required documents in any other Envelope or not mentioning the required information at the specified place, the bid will not be considered and will be rejected.**

**We are signing in acceptance of above Special Terms & Conditions laid down by the department.**

**SIGNATURE OF TENDERER WITH RUBBER STAMP**

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**CONDITIONS OF TENDER AND CONTRACT FOR OPEN TENDER**

(See Rule 68)

Note: Tenderer should read these conditions carefully and comply strictly which sending their tenders.

1. Tenders must be enclosed in a properly sealed envelope according to the directions given in the tender notice.
2. "Tenders by Bona-fide dealers" – Tenders shall be given only by bona-fide Manufacturer / Authorized Dealer – Distributor in the goods. They shall, therefore, furnish a declaration in the SR FORM 11.
3. (1) Any change in the constitution of the firm, etc., shall be notified forth with by the contractor in writing to the purchase officer and such change shall not relieve any partner member of the firm, etc., any liability under the contract.  
(2) No new partner/partners shall be accepted in the firm by the contractor in respect of the contract unless he/they agree to avoid by all its terms, conditions and deposit with purchase receipt for with the purchase officer a written agreement to this effect. The contractor's receipt for acknowledgement or that of any partners subsequently accepted as above shall bind all of them and will be sufficient discharge for any of the purpose of the contract.
4. Sales Tax Registration and Clearance Certificate: - No Dealer who is not registered under the Sales Tax Act prevalent in the State where his business is located shall tender. The Sales Tax Registration Number should be quoted and a sales tax clearance certificate from the commercial Taxes Officer of the Circle concerned shall be submitted without which the tender is liable to rejection.
5. Tender forms shall be filled in ink or typed. No tender filled in pencil shall be considered. The tenderer shall sign the tender form at each page and at the end in token of acceptance of all the terms and conditions of the tender.
6. Rate shall be written both in words and figures. There should not be errors and/or over-writings. Corrections if any should be made clearly and initialed with dates. The rates should mention element of the Rajasthan State Tax and Central, Sales Tax separately.
7. All rates quoted must be FOR destination and should include all incidental charges except octroi, Central / Rajasthan Sales Tax which should be shown separately. In case of local supplies the rates should include all taxes, etc. and no cartage or transportation charges will be paid by the Government and the delivery of the goods

shall be given at the premises of purchase Officer. Goods to be purchased are for the purpose of official use, hence octroi is not payable.

The rates, therefore, should be exclusive of octroi, and local tax. In case goods to be purchased are for the purpose of resale or use as manufacture of any goods for sale, the rate shall be inclusive of octroi and local tax. In the former case, a certificate in the prescribed will be furnished along with the supply order.

8.
  - a. Comparison of Rates:- In comparing the rates/ tendered by firms outside Rajasthan and those in Rajasthan but not entitled to Price Preference under the rule the element of Rajasthan Sales Tax shall be excluded whereas that of Central Sales Tax shall be included.
  - b. While comparing the rates in respect of firms within Rajasthan, the element of Rajasthan Sales Tax shall be included.
9. **Validity:** - Tenders shall be valid for a period of three months from the date of opening of Financial Bid.
10. The approved supplier shall be deemed to have carefully examined the conditions, specifications, size make and drawings, etc., of the goods to be supplied. If he has any doubts as to the meaning of any portion of these conditions or of the specification, drawing, etc., he shall, before signing the contract, refer the same to the Purchase officer and get clarifications.
11. The contractor shall not assign or sub-let his contract or any substantial part to any other agency.

## **12. Specifications:-**

- I. All article supplied shall strictly conform to the specifications, trade mark laid down in the tender form and wherever articles have been required according to ISI specifications, those articles should conform strictly to those specifications and should bear such marks.
- II. The supply of articles marked with asterisk/at serial number ..... shall in addition, conform strictly to the approved. Samples and in case other material where are no standard or approved samples, the supplier shall be of the very best quality and description. The decision of the Purchase Officer/Purchase Committee whether the articles supplied conform to the specifications and are in accordance with the samples, if any, shall be final and binding on the tenderers.
- III. **Guarantee clause:-**
  - i. The tenderer would give comprehensive guarantee that the goods/stores/articles would continue to conform to the description and quality as specified for a period of 24 months from the date of installation/delivery of the said goods/stores/articles to be purchased and that notwithstanding the fact that the purchaser may have inspected and/or approved the said goods/stores/articles if during the aforesaid period of 24 months, the said goods/stores/articles be discovered not to conform to the description and quality aforesaid or have determined (and the decision of the purchase Office in that behalf will be final and conclusive), the purchaser will be entitled to reject the said goods/stores/articles or such portion thereof as may be discovered not to conform to the said description and quality, on such

rejection the goods/stores/articles will be at the sellers risk and all the provisions relating to rejection of goods, etc., shall apply. The tenderer shall if so called upon to do, replace the goods, etc., or such portion thereof as is rejected by the Purchase Officer, otherwise the tenderer shall pay such damage as may arise by reason of the breach of the condition herein contained. Nothing herein contained shall prejudice any other right of the Purchase Officer in that behalf under this contract or otherwise.

- IV. In case of machinery and equipment also, guarantee will be given as mentioned in clause above and the tenderer shall during the guarantee period replace the parts if any and remove any manufacturing defect if found during the above period so as to make machinery and equipments operative. The tenderer shall also replace machinery and equipments if it is found defective which cannot be put to operation due to manufacturing defect, etc.
- V. In case of machinery and equipment specified by the Purchase Officer the tenderer shall be responsible for carrying out annual maintenance and repairs on the terms and conditions as may be agreed. The tenderer shall also be responsible to ensure adequate regular supply of spare parts needed for a specific type of machinery and equipments whether under their annual maintenance and repairs rate contract or otherwise. In case of change of model he will give sufficient notice to the Purchase Officer who may like to purchase spare from them to maintain the machinery and equipments in perfect condition.

**13. Inspection:-**

- a. The Purchase Officer or the duly authorized representative shall at all reasonable time have access to the supplier's premises and shall have the power at all reasonable time to inspect and examine the materials and workmanship of the goods/equipment/ machineries during manufacturing process or afterwards as may be decided.
- b. The tenderer shall furnish complete address of the premises of officer, godown and workshop where inspection can be made together with name and address of the person who is to be contacted for the purpose. In case of those dealers who have newly entered in business, a letter of introduction from their bankers will be necessary.

14. **Samples:** - Tenders for articles marked within the schedule shall be accompanied by two set of samples of the articles tendered properly packed. Such samples if submitted personally will be received in the office. A receipt will be given for each sample by the officer receiving the samples. Samples if sent by train, etc., should be dispatched freight paid and the R/R or G.R. should be sent under a separate registered cover. Samples for catering/foods items should be given in a plastic box or in polythene bags at the cost of the tenderer.

15. Each sample shall be marked suitably either by written in the samples or on a slip of durable paper securely fastened to the sample, the Name of the tenderer and serial number of item, of which it is a sample in the schedule.

16. Approved samples would be retained free of cost up to the period of six months after the expiry of the contract. The government shall not be responsible for any damage, wear and tear or loss during testing, examination, etc., during the period these samples are retained.

The sample shall be collected by the tender on the expiry of stipulated period. The Government shall in no way make arrangements to return the samples uncollected within 9 months after expiry of contract shall be forfeited by the Government and no claim for their cost, etc., shall be entertained.

17. Samples not approved shall be collected by the unsuccessful tenderer. The Government will not be responsible for any damage, wear, or loss during testing, etc., during the period these samples are retained. The uncollected samples shall be forfeited and no claim for their cost, etc., shall be entertained.
18. Supplies when received shall be subject to inspection to ensure whether they conform to the specifications or with the approved samples. Where necessary or prescribed, tests shall be carried out in Government laboratories, reputed testing house like Sri Ram Testing House, New Delhi and the like and the supplies will be accepted only where the articles conform of the standard of prescribed specifications as a result of such test.
19. Drawl of samples: - In case of tests, samples shall be drawn in four sets in the presence of tenderer or this authorized representative and property sealed in their presence. Once such set shall be given to them, one or two will be sent to the laboratories and/or testing house and the third or fourth will be retained in the office for reference and record.
20. **Testing charges:** - Testing charges shall be borne by the Government. In case urgent testing is desired to be arranged by the tenderer or in case of test results showing that supplies are not up to the prescribed standards or specifications, the testing charges shall be payable by the tenderer.
21. **Rejection:-**
  - I. Articles not approved during inspection or testing shall be rejected and will have to be replaced by the tenderer at his own cost within the time fixed by the Purchase Officer.
  - II. If, however due to exigencies of Government work, such replacement either in whole or in part, is not considered feasible, the Purchase Officer after giving an opportunity to the tenderer of being heard, shall for reasons to be recorded, deduct a suitable amount from the approved rates. The deduction so made shall be final.
22. The rejected articles shall be removed by the tenderer within 15 days of intimation of rejection, after which Purchase Officer shall not be responsible for any loss, shortage or damage and shall have the right to dispose of such articles as he thinks fit, at the tenderer's risk and on his account.
23. The tenderer shall be responsible for the proper packing so as to avoid damage under normal conditions of transport by sea, rail and road or air and delivery of the material in good condition to the consignee at destination. In the event of any loss, damage, breakage or leakage at any shortage the tenderer shall be liable to make good such loss and shortage found at the checking/inspection of the materials by the consignee. No extra cost" on such account shall be admissible.

24. The contract for the supply can be repudiated at any time by the Purchase Officer, if the supplies are not made to his satisfaction after giving an opportunity to the tenderer of being heard and recording of the reaction for repudiation.
25. Direct or indirect canvassing on the part of the tenders of his representative wills a disqualification.
- 26.
- I. Delivery period: - The tenderer whose tender is accepted shall arrange supplies within a period up to ..... From the date of supply order / by as under;
 

S.no.	Items	Quantity	Delivery Period
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  - II. Extent of quantity - Repeat orders: - It the orders are placed in excess of the quantities shown in the tender notice. The tenderer shall be bound to meet the required supply. Repeat orders may also be placed on the rate and conditions given in the tender provided than the repeat order are up to 50/- of the quantity, originally purchased and the period is not more than one month from the date of expiry of last supply. If the tenderer fails to do so, the purchase Officer shall be free to arrange for the balance supply by limited tender or otherwise and the extra cost incurred shall be recoverable from the tenderer.
  - III. If the Purchase officer does not purchase any of the tenderer articles or purchases less than the quantity indicated in the tender from, the tender from, the tenderer shall not be entitled to claim any compensation.

**27. Earnest Money:-**

- a. Tender shall be accompanied by earnest money of Rs per Schedule 'A' without which tenders will not be considered. The amount should be deposited in either of the following form in favour of **Joint Director Agriculture (Botany), Seed Testing Laboratory** payable at **Jaipur**.
  - I. Cash through treasury challan deposited under head "8443-Civll Deposits-103-Security Deposits"
  - II. Bank drafts/bankers cheque of the scheduled bank.
  - III. Refund of earnest money: - the earnest money of unsuccessful tenderer shall be refunded soon after final acceptance of tender.
  - IV. Partial exemption from earnest money: - Firms which they are registered with director of industries Rajasthan, shall furnish the amount of earnest money in respect of items for which they are registered as such subject to their furnishing registration certificate in original or Photostat copy or a copy thereof duly attested by any Gazetted Officer from the director of industries Rajasthan, at the rate of ½% of the estimated value of the tender shown in NIT.
  - V. The central Government and Government of Rajasthan Undertaking need not furnish any amount of earnest money.
  - VI. The earnest money / security deposit lying with the Department/office in respect of other tenders awaiting approval or rejected or on account of contract being completed will not be adjusted towards earnest money/

security money for the fresh tender. The earnest money may however, be taken into consideration in case tenders are re-invited.

28. Forfeiture of earnest money:- the earnest money will be forfeited in the following cases:

- I. When tenderer withdraws or modifies the offer after opening of tender but before acceptance of tender.
- II. When tenderer does not execute the agreement if any, prescribed within the specified time.
- III. When the tenderer does not deposit the security money after the supply order is given.
- IV. When he fails to commence the supply of the items as per supply order within the time prescribed.

**29. Agreement and security deposit:-**

- I. Successful tenderer will have to execute an agreement in the form 17 within a period of 7 days of receipt of order and deposit security equal to 5% of the value of the stores for which tenders are accepted within 15 days from the date of dispatch on which the acceptance of the tender is communicated to him.
- II. The earnest money deposited at the time of tender will be adjusted towards security amount the security amount. The security shall in no case be less than earnest money.
- III. No interest will be paid by the department on the security money.
- IV. The forms of security money shall be as below.
  - a. Cash /Bank Draft/Bankers Cheque/Receipted copy of challan.
  - b. Post-office Savings Bank Pass Book duly pledged.
  - c. National savings Certificate, Defense Savings Certificate, Kisan Vikas Patras, or any other script/instrument under National Savings Schemes for promotion of small savings, if the same can be pledged. These certificates shall be accepted at surrender value.

The security money shall be refunded within one month of the final supply of the items as per purchases order in case of one time purchase and two months in case delivery is staggered, after the expiry of contract on satisfactory completion of the same or after the expiry of the period of guarantee if any whichever is later and after satisfied there are no dues outstanding against the tenderer.

(2)

- i. Firms registered with the Director of industries Rajasthan In respect of stores for which they are registered, subject to their finishing the registration in original from the Director of Industries or a Photostat copy or a copy thereof duly attested by any Gazetted Officer, will be partially exempted from earnest money and shall pay security deposit at the rate of 1% of the estimated value of tender.
- ii. Central Government and Government of Rajasthan's undertaking will be exempted from furnishing security amount.

(3) Forfeiture of Security Deposit-Security amount in full or part may be forfeited in the following cases:-

- a. When any terms and conditions of the contract is breached.
- b. When the tenderer fails to make complete supply satisfactorily.

c. Notice of reasonable time will be given in case of forfeiture of security deposit. The decision of the Purchase Officer in this regard shall be final.

(4) The expenses of completing and stamping the agreement shall be paid by the tenderer and the department shall be furnished free of charge with one executed stamped counter part of the agreement.

30. i. All goods must be sent freight paid through Railway or goods transport. If goods are sent freight to pay, the freight together with departmental charge 5% of the freight will be recovered from the suppliers bill.
- ii. R.R. should be sent under Resisted cover through bank only.
- iii. In case supply is desired to be sent by the Purchase Officer by Passenger train, the entire railway freight will be borne by the department.  
Remittance charges, on payment made shall be borne by the tenderer.

**31. Insurance:-**

- i. The goods will be delivered at the destination godown in perfect condition. The supplier, if he so desires, may be insured the valuable goods against loss by theft, destruction or damage, by fire, flood, under exposure to whether or otherwise viz, (war rebellion, riot, etc.,) the insurance charges will be borne by the supplier and State will not be required to pay such charges, if incurred.
- ii. The article may also be got insured at the cost of the Purchaser, if so desired by the Purchaser. In such cases, the insurance should invariably be with Life Insurance Corporation of India or its subsidiaries.

**32. Payment:-**

- i. Advance payment will not be made except in rare and special cases. In case of advance payment being made. It will be against proof of dispatch and to the extent as prescribed in financial powers by rail/reputed goods transport companies, etc., and prior inspection, if any. The balance if any will be paid on receipt of the consignment in good condition with the certificate to that effect endorsed on the inspection not given to the tenderer.
- ii. Unless otherwise agreed between the parties' payment for the delivery of the stores will be made on submission of bill in proper form by the tenderer to the Purchase Officer in accordance with GF & AR all remittance charges will be borne by the tenderer.
- iii. In case of disputed items, 10 to 25% of the amount shall be with held and will be paid on settlement of the dispute.
- iv. Payment in case of those goods which need testing shall be made only, when such test have been carried out, test results received confirming to the prescribed specification.

33. i. The time specified for delivery in the tender form shall be deemed to be the essence of the contract and the successful tenderer shall arrange supplies within the period on receipt of the firm order from the Purchase Officer.

ii. Liquidated damages:- in case of extension in the delivery period with liquidated damages the recovery shall be made on the basis of following percentages of value of Stores which the tenderer has failed to supply:-

- (1) (a) Delay up to one fourth period of the prescribed delivery period 2.5%  
(b) Delay exceeding one fourth but not exceeding half of the prescribed period 5%  
(c) Delay exceeding half but exceeding three fourth of the prescribed period 7.5%  
(d) Delay exceeding three fourth of the prescribed period 10%
- (2) Fraction of a day in reckoning period of delay in supplies shall be eliminated if it is less than half a day.
- (3) The maximum amount of liquidated damages shall be 10%

- (4) If the supplier requires an extension of time in completion of contractual supply on account of occurrence of any hindrance, he shall apply in writing to the authority, which has placed the supply order, for the same immediately on occurrence of the hindrance but after the stipulated date of completion of supply.
- (5) Delivery period pay is extended with or without liquidated damages if the delay in the supply of goods is on account of hindrances beyond the control of the tenderer.

**34. Recovery:-**

Recoveries of liquidated damages, short supply, breakage, rejected articles shall ordinary be made from bills. Amount may also be with held to the extent of short supply, breakage, and rejected articles and in case of failure in satisfactory replacement by the supplier alongwith amount of liquidated damages shall be recovered from his dues and, security deposit available with the department. In case recovery is not possible recourse will be taken under Rajasthan PDR Act or any other law in force.

35. Tenderers must make their own arrangements to obtain import license, if necessary.

36. If a tenderer imposes conditions which are in addition to or in conflict with the conditions mentioned herein, his tender is liable to summary rejection. In any case none of such conditions will be deemed to have been accepted unless specifically mentioned in the letter of acceptance of tender issued by the Purchase Officer.

37. The Purchase Officer reserves the right to accept any tender not necessarily the lowest, reject any tender without assigning any reasons and accept tender for all or anyone or more of the articles for which tenderer has been given or distribute items of stores to more than one firm/supplier.

38. The tenderer shall furnish the following documents at the time of execution of agreement:-

- i. Attested copy of Partnership Deed in case of Partnership firms.
- ii. Registration Number and year of registration in case partnership firm is registered with Registrar of Firms.
- iii. Address of residence and officer, telephone numbers in case of sole Proprietorship.
- iv. Registration issued by Registration of Companies in case of Company.

39. If any disputes arise out of the contract with regard to the interpretation, meaning and breach of the terms of the contract, the matter shall be referred to by the Parties to the Head of the Department who will appoint his senior most deputy as the Sole Arbitrator of the dispute who will not be related to this contract and whose decision shall be final.

40. Price Preference: Price preference will be given to the goods produced or manufactured by industries of Rajasthan over goods produced or manufactured by industries outside Rajasthan as per Purchase of Stores Rules.

41. All legal proceedings, if necessary arise to institute may by any of the parties (Government or Contractor) shall have to be lodged in courts situated in Rajasthan and not elsewhere.

I/we hereby agree all above terms & conditions and have signed on each page as a token of acceptance.

**Signature of Tenderer with Rubber Stamp**

**GOVERNMENT OF RAJASTHAN  
OFFICE OF JOINT DIRECTOR AGRICULTURE (BOTANY),  
SEED TESTING LABORATORY, DURGAPURA, JAIPUR, (RAJASTHAN)**

**SR FROM - 11**

**DECLARATION BY TENDERERS**

We hereby declare that we are Bonafide Manufacturers\ Authorized \ Sole Distributors\ Authorized Dealer. The Goods\ Stores\ Equipments\ For Which We Have Tendered.

If this declaration is found to be incorrect then without prejudice to any other action that may be taken, our Security may be forfeited in full and the tender if any to the extent accepted may be cancelled.

**Signature of Tenderer with Rubber Stamp**

**UNDERTAKING TO BE SUMMITTED BY PRINCIPAL  
MANUFACTURER**

**SCHEDULE 'B'**

It is to certify that M/s \_\_\_\_\_  
\_\_\_\_\_ sub dealer

(Name and Address of Tenderer) is our Authorized Distributor\ Dealer\ They are Authorized to submit tender for \_\_\_\_\_(Name of item) to Joint Director Agriculture, (Botany), Seed Testing Laboratory, Durgapura, Jaipur, (Rajasthan) Against their Tender Notice No \_\_\_\_\_

Dated \_\_\_\_\_

The Equipment\ Instrument is Guaranteed for Two Years Comprehensive Guarantee\Warranty with spare parts from the date of installation and Authorized Distributor\ Dealer shall during the guarantee period replace the parts if any, or rectify any manufacturing defect found during the above period free of cost so as to make the machinery operative and in perfect condition.

In case of change of Authorized Distributor\ Dealer, sub dear we will inform the purchased officer accordingly. The new Dealer\ Distributor will be responsible for after sales and service and annual maintenance and repairs contracts as above. In case of Authorized Dealer\ Distributor we will be responsible for providing after sales service of the equipment as per terms and conditions of tender and contract.

**SIGNATURE OF THE PRINCIPAL MANUFACTURER  
WITH RUBBER STAMP**

**NOTE:(This undertaking should be typed and Signed by Principal Manufacturer on his Original Letter Pad)**

**OFFICE OF JOINT DIRECTOR AGRICULTURE (BOTANY), SEED TESTING  
LABORATORY, DURGAPURA, JAIPUR**

**FOLLOWING POINTS TO BE NOTED WHILE FILLING FINANCIAL BID:**

- 1. This bid should be submitted in separate envelope with clear marking that it is Financial Bid Envelope.**
- 2. The Financial Bid compulsorily be filled in prescribed format only. Any Financial information mentioned elsewhere or in different form shall not be considered.**
- 3. All rates quoted must be FOR Destination Stores as per Schedule 'A' in Tender documents.**
- 4. Rates quotes should include all Inward expenses up to Destination point Including Freight, Insurance, custom charges if any except VAT / CST should be shown separately.**
- 5. For every instrument / item financial bid should be submitted separately.**
- 6. Payment of AMC Charges will be made on Quarterly basis only after of AMC visit duly singed & verified by the concerning lab in charge. No Advance payment will be made under any circumstances for AMC.**

**I/we hereby agree to above points.**

**Signature of Tenderer with Seal**

**Enclosed: Financial Bid Format duly filled, signed & sealed.**

**OFFICE OF JOINT DIRECTOR AGRICULTURE (BOTANY), SEED  
TESTING LABORATORY, DURGAPURA, JAIPUR**

**FORMAT OF FINANCIAL BID FOR ITEM NO \_\_\_\_\_ & NAME OF  
ITEM \_\_\_\_\_**

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<b>S.N O.</b>	<b>PARTICULARS</b>	<b>PRICE IN INDIAN RUPEES (FIGURES &amp; WORDS) FOR DESTINATION STORES AS PER SCHEDULE 'A'</b>
<b>1.</b>	<b>Unit Price (Excluding VAT / CST</b>	
<b>2.</b>	<b>VAT / CST including Surcharge if any in</b>	
<b>3.</b>	<b>Final Price Valid for Tender (Column 1+2</b>	
<b>4.</b>	<b>A.M.C. Charges for 7 years</b>	
	Ist Year	
	IIInd Year	
	IIIrd Year	
	IVth Year	
	Vth Year	
	VIth Year	
	VIIth Year	

**Signature of Tenderer with Seal & Address**

GOVERNMENT OF RAJASTHAN  
**OFFICE OF JOINT DIRECTOR AGRICULTURE (BOTANY),  
 SEED TESTING LABORATORY, DURGAPURA, JAIPUR**

**SCHEDULE 'A'**

**DETAILS OF INSTRUMENTS, APROX COST, EARAEST MONEY, DESTINATION VENUE AND DELIVERY PERIOD**

ITEM NO.	NAME OF THE INSTRUMENTS / ITEM	QTY	APPROX COST IN RS.	REQUIRE D EARNES T MONEY	DESTINATION VENUE UPTO STORES	DELIVERY PERIOD
<b>Equipments for DNA Fingerfrinting</b>						
1.	Thermocycler (PCR)	1	250000	5000	STL LAB DURGAPURA, JAIPUR	Within 30 Days From the date of Supply order
2.	Dual Polyacrylamide Vertical Gel Electrophoresis with Power Supply etc.	1	400000	8000	STL LAB DURGAPURA, JAIPUR	Within 30 Days From the date of Supply order
3.	Gel Documentation System with Dark hood & UV Transilluminator etc.	1	450000	9000	STL LAB DURGAPURA, JAIPUR	Within 30 Days From the date of Supply order
4.	Deep Freezer	1	100000	2000	STL LAB DURGAPURA, JAIPUR	Within 30 Days From the date of Supply order
5.	Ice Making machine	1	100000	2000	STL LAB DURGAPURA, JAIPUR	Within 30 Days From the date of Supply order
6.	Refrigerated High Speed Centrifuge with Rotors	1	200000	4000	STL LAB DURGAPURA, JAIPUR	Within 30 Days From the date of Supply order
7.	Micro Pipettes with stands	16	100000	2000	STL LAB DURGAPURA, JAIPUR	Within 30 Days From the date of Supply order
8.	UV visible double beam spectro photometer	1	300000	6000	STL LAB DURGAPURA, JAIPUR	Within 30 Days From the date of Supply order
<b>Equipments for BT cotton testing</b>						
9.	Elisa Reader with washer	2	1000000	20000	STL LAB DURGAPURA, JAIPUR AND SHRIGANGANAGAR	Within 30 Days From the date of Supply order
10.	BT Seed Grinder	2	500000	10000	STL LAB DURGAPURA, JAIPUR AND SHRIGANGANAGAR	Within 30 Days From the date of Supply order
11.	Cooling Micro Centrifuge	2	300000	6000	STL LAB DURGAPURA, JAIPUR&SHRIGANGANAGAR	Within 30 Days From the date of Supply order
<b>Other Item</b>						
12	Germination Paper	15 qtls.	200000	4000	STL LAB DURGAPURA, JAIPUR	Within 30 Days From the date of Supply order

## **Item No.1 SPECIFICATIONS FOR PCR THERMOCYCLER**

Microprocessor based programmable for precise amplification of nucleic acids for PCR & Sequencing PCR with following features.

Multiple Peltier based technology with user diagnostic features

Interchangeable sample blocks – 96 x 0.2 ml, 60 x 0.5 ml

Upgradable to a higher sample well block.

LCD to display complete profile of PCR /RT-PCR & cycle sequencing.

Efficient heating & cooling 4.5°C/Sec.

Heated lid facility.

Temp. range 4-99.9°C

Temp. accuracy  $\pm 0.25^\circ\text{C}$

Temp. uniformity  $\pm 0.5^\circ\text{C}$

Auto-restart facility

The rate should be quoted with silver, aluminium & golden black; power 220-240V; 50/60 Hz

## **GENERAL POINTS TO BE INCLUDED**

1. The rate should be quoted with and without custom duty paid.
2. The bidder should be the exclusive dealer and should produce authorization document from the manufacturer towards marketing, servicing and AMC etc for the product in the region.
3. Training : 2 weeks free training
4. Two years warranty followed by 5 years AMC should be provided for ELISA, washer, Gel documentation and PCR.

**Item No.2. DUAL POLYACRYLAMIDE**  
**VERTICAL GEL**  
**ELECTROPHORESIS WITH POWER SUPPLY Etc**

1. Polyacrylamide Gel Electrophoresis using fixed spacers and a one piece profiled silicone rubber seal for rapid, complete sealing without the need of additional sealing materials such as agarose or silicone grease. Protection to be provided against the neurotoxin acrylamide using the leak-free casting system.
2. System having Double-gel design featuring back-to-back vertical gel, each for separation of up to 45 samples (90 samples total). It should have built in cooling system and long running distance perfect to achieve good separation & high resolution. It should be capable for separation of large sample volumes when the concentration of sample is not possible.
3. It should be able to separate specific proteins from complex mixture (antibody production, enzyme kinetics to of toxicology studies) and native or SDS-PAGE Gels. System should be supplied complete with 2 sets of glass plates with 1mm spacers, 2 silicone seals, 2 combs of 12 wells, 9 clips, 4maxi clips and manual with following parameters.
4. Gel size (W × L) 17.0×18.0cm/ 16×20cm or 20×20cm
5. Glass plate size (W × L) 20.2×20.8cm
6. Number of gels 1 or 2
7. Capacity max.45 samples per gel (48 samples total)
8. Typical sample volumes 40 – 3,000 µl per well (depending on gel thickness)
9. **Combs thickness (mm)    Number of Wells    Volume per Well (µl)**

1.0	1 prep. (Without marker lane)	1 prep. +2 marker lanes
	12	1800c
	18	2×50 and 1600c
	24	140
	25	90
		50
		40
10.    2.0	1perp. +2 marker lanes	2×100 and 3200c
	12	280
	18	180
	24	100
	45	50
11. Buffer volume 400 ml (upper buffer chamber) + 500ml (lower buffer chamber)  
System to be supplied with built in cooling system.
12. Power pack with timer:  
Power pack with timer function & control from 0 to 1,999 minutes, timer should have facility of display of remaining time (in a timed run), having output settings of 0-500mA at 0-400V, 0-1000mA at 0-200V. And having following parameters:
- 13 Max. Voltage [V]                   : 400  
Max. Current [mA]                   : 1000  
Max. Power [V]                       : 200

Const. Voltage : +  
Const. current : +  
Const. Power : -  
No. of Outputs : 4

14. Vacuum Heat Gel Dryer : 50×40cm slab Gel dryer system
- A. Gel Dryer - unit dimension (H×W×D) : 12×63×48cm
    - Timer -vacuum 0-5 Hrs
    - Temperature 0-5hrs
    - Drier Gel size up 50×40cm
  - B. Vacuum pump unit dimensions 35.5×28.5×39cm
- Condensed vapour capacity – 1.5 Ltr.

### **Item No.3. SPECIFICATION FOR GEL DOCUMENTATION WITH DARK HOOD & UV TRANSILLUMINATOR Etc.**

1. Camera: High performance scientific grade cooled CCD camera for chemiluminescence Application & DNA Gels.
  - Thermoelectrically cooled CCD camera with scientific grade CCD
  - Resolution 765×510 pixels
  - Peltier cooling (-20° C from ambient)
  - 16 bit A/D (digitization)
  - Exposure time up to 3600 seconds.
  - Quantum efficiency>80% peak, full well cap 100,000 dark current le/pixel/dec@0deg.
  - High speed USB interface to computer
2. Zoom lens: 38 to 115mm:
3. Interference filters : Ethidium Bromide  
Close up lens: +1,2 close up diopter lenses
4. UV trans-illuminator : Unfilterable with the dark chamber
5. Compact closed darkroom with:
  - Fold down white light transilluminator.
  - Epi-white light illumination for reflectance modes.
  - Epi-UV illumination for reflective modes.
6. Software:
  - 1D gel analysis and pattern matching
  - Gel software for gel documentation, analysis and image analysis.
  - ID gel analysis
  - Densitometry (automated and interactive)
  - 2D spot and blot analysis
  - Colony counting
  - Gel match: software for lane comparisons, pattern matching, RFLP, Dendogram construction etc.
7. Computer:
  - Intel P4, 2.84 GHz
  - Intel chipset 845 Motherboard
  - 256 MB DDR Ram,
  - 1.44MB FDD, 80 GB 7200 RPM,
  - 15" colour monitor, keyboard,
  - Mouse, 48×CD ROM Drive
8. Printer : colour laser printer for realistic quality image out puts

#### **Item No.4.DEEP FREEZER -20<sup>0</sup> C VERTICAL TYPE**

1. Deep Freezer Microprocessor controlled should have double door and double walled with inner chamber made of stainless steel and outer of thick PCRC sheet duly enamel painted.
2. Temperature range from ambient to -20<sup>0</sup> C is achieved by hermetically compressor.
3. Body should be mounted on a sturdy angle iron frame and is mounted on castor wheels.
4. The copper cooling coils are welded throughout on the outer side of the S.S chamber which provides efficient cooling up to -20<sup>0</sup> C. Air circulation fan to be fitted to unit so as to maintain uniform temperature throughout the chamber.
5. The gap between the inner and outer wall should be filled with PUFF insulation.
6. Unit fitted with Microprocessor based Digital indicator cum controller. Capacity 10 Cu. Ft, to be supplied with suitable voltage stabilizer.
7. **The equipment should be at standard make with users list and their contact details.**

NOTE: - above Deep Freezer will be accepted only of YORCCO, REMI, CALTON (NARANG), SEW, MB, spectrum or any other imported make.

## **Item No.5. ICE MAKER (ICE MAKING MACHINE)**

1. The Ice making machine should be CFC free & Puff insulated, with capacity of 25kg/24 hours or more
2. Outer body is made of CRC sheet duly powder coated inner chamber and lid of storage bin are made up of stainless steel.
3. The unit is insulated with PUFF for minimal loss of thermal.

## **Item No.6.Refrigerated High Speed Centrifuge with Rotor**

Maximum speed	: 20,000 rpm
Maximum RCF	: 21,040xg
Maximum Capacity	: 1,020ml
Control system	: Micro-processor control (Brushless motor)Speed, RCF, time, g- sec memories
Alarm display	: Lid open, Imbalance, over speed, abnormally high temperature Function for detecting an occurrence of electrical abnormally in motor, inverter, lid interlock and speed sensor, temperature sensor
Acceleration / Deceleration	: Three-level so lectors, Rapid, Slow and super Slow
Speed setting	: from 200 to 20,000rpm, 10rpm increments
Speed indication	: Digital display, from 0 to 15,500rpm, 10rpm increments
RCF setting	: from 10 to 21,010xg, 10xg increments (adjustable to actual rotation radius)
RCF indication	: Digital display, from 0 to 22,030xg, 10xg increments (adjustable actual rotation radius)
Integrator setting and indication	: Digital display, from 1.00 to 9.99x 10 <sup>9</sup> g.sec
Timer setting and indication	:Digital display, with hold and memory flashing From 1 sec to 100 sec, in 1 sec increment setting / indication From 100 sec to 990 sec, in 10 increment setting / 1 sec increment indication From 1 min to 100 min, in 1 min increment setting / indication From 100 min to 100 990 min, in 10 min increment setting / in 1 min increment indication
Temperature setting and indication (chamber)	: Digital display, 1 <sup>0</sup> C increments setting and indication from -20 <sup>0</sup> C to 40 <sup>0</sup> C with pre-cooling
Refrigerant	: R134a
Power requirements	: Single phase AC 110 V ± 10%, 15A : Single phase AC 115 V± 10% 15A : Single phase AC 220V ± 10%, 10A : Single phase AC 230V ± 10%, 10A
Rated voltage and rated current	: 110V 9, 1A, 115V 8.7A, 220V 4.6A, 230V 4.4A
Power consumption and heat output	: 0.78kW 2.8MJ/h
Test standard	: Manufactured and tested in accordance with IEC 61010-2-20

## **Item No.7. MICRO PIPETTES**

A.) Fully Autoclavable Variable volume micro pipettes:

	CAPACITY	QUANTITY
1.	0.2-2ul	4Nos
2.	2-20ul	2No
3.	5-50ul	2No
4.	20-100ul	2No
5.	20-200ul	4Nos
6.	100-1000ul (Fixed)	1No
7.	1-5ml (Fixed)	1No

**Only imported brands will be accepted with three years warranty.**

B.) Micro pipette Stand

Micro pipette stand bench top for 6 pipettes with cover. -----4 Nos

## **ItemNo.8. UV Visible Double Beam Spectrophotometer**

### **Performance specifications**

Wavelength range	190 to 1100 nm
Wavelength Set ability	0.1 nm Increments
Wavelength Accuracy – At 656.1 nm – Full Range	+0.2 nm , +0.5 nm
Wavelength Repeatability – At 656.1 nm – Full Range	+0.1 nm , +0.2 nm
Spectral Bandwidth (from 200 to 680 nm)	<= 1.8 nm
Photometric Readout	-0.300 to 3.000A or 0.0 to 200% T
Photometric Accuracy (at 1A with NIST 930D solid filter at 546 nm)	+ 0.005A
RMS noise (at 0A, average of 10 standard deviations of 10 readings at 0.05 sec intervals, at 500 nm)	< 0.0002A RMS
Stray Light (measured using NaI at 220 nm, per ASTM E387-84)	< 0.05%T
Stability (OA, constant ambient conditions, measured for one hour at 340 nm after one hour warm-up)	< 0.003A/hr
RMS Baseline Flatness (from 200 to 900 nm, at 0 A)	+ 0.001A RMS

### **Physical and Environmental Specifications**

Line Voltage	110 – 240V +10%
Frequency	50/60 Hz
Power	200 watts typical
Temperature Operating Range	+15 to 40°C (59 to 104°F)
Humidity	< 85% maximum relative humidity

## **Item No.9 SPECIFICATION ELISA READER AND WASHER**

### **A. ELISA READER**

1. Accommodate flat U/V bottom 96 well microplates.
2. Fully automatic microprocessor based
3. Should have 8-12 measuring channel & 1 reference channel.
4. Should have wave length range of 340-850nm (6 filters 340, 405, 450, 620nm ) with provision for fitting additional filters.
5. Should have a minimum resolution of 0.001 OD and linearity upto 3.0 OD
6. Should read within 12-20 seconds.
7. Should have programmable time & speed shaking.
8. Should be able to read 96 well microplates.
9. Should have at least 25 user defined programmes.
10. Should have data memory of at least last 25 plates.
11. Should have data transfer facility to the computer.
12. Should work on 180-260 volts AC.
13. Xenon lamp with one spare lamp.
14. Resolution – 0.001 Abs.
15. Optical system – grating monochromatic
16. Detector – LED/photodiode
17. Temperature range 5-45°C.
18. Od accuracy <1% @ 2.000
19. OD linearity <3% @ 3.000
20. Repeatability 0.5% @ 2.000
21. Software used for analysis of samples by ELISA should be fool proof, should not accept any correction on analysis report and number of samples analysed by ELISA.
22. Should have external printer, capable of printing complete results & graphs etc. directly from the ELISA reader.
23. Voltage Stabilizer should be provided.

## **B. WASHER**

1. IAD filters with facility for different types of reagent bottles including small vials.
2. Probe made of stainless steel for maximum reagent compatibility and level sensing.
3. Maximum aspiration volume should be 250 $\mu$ l or more.
4. Probe with level sensing for large & small volumes and reagent preheating facility.
5. Wash head : 8-needles, automatic prime and rinse.
6. Programmability of needle position (horizontal or vertical to an accuracy of 0.1 mm for bottom washing, cross wire aspiration and overflow washing).
7. Dispenser speed control.
8. Compatible with flat –U- or V- bottom micro plates.
9. Plate shaking option.
10. Waste bottle sensor to detect high waste liquid levels.
11. Programmable washing sequences, long, short, rinsing & priming.
12. Integrated vacuum and dispensing pumps to ensure accurate and quiet washing.
13. Programs : user-programmable protocols (aspirate, dispense and soak)
14. To wash 96 well flat and round bottoms ELISA Plates at one go.
15. Programmable wash cycles upto 20.
16. Wash volume 10-300  $\mu$ l or more adjustable according to our need. Precision for the sample volume more than 5 $\mu$ l-1% CV less than 5  $\mu$ l – 2.5% CV
17. Processing speed <30 sec. (3 cycle , 300  $\mu$ l, 96 wells).

### **Item No.10 SPECIFICATION OF BT SEED GRINDER**

Grinder, for (seed/Leaves)sample preparation (192 samples at a time in two deep well plates OR 96 samples in 2ml micro centrifuge tubes) Which can be used in ELISA test, DNA isolation for PCR test with accessories Such as steel balls, well plate, cover mat, For well plate, extra belt for grinder Operational at 220-240 V/50 Hz.

#### **With standard Accessories**

Steel Ball : 1000 Nos.

2ml Deep well plate : 6 Nos.

Cover mat for Deep well plate : 4 Nos.

2ml Microcentrifuge tubes: 500 nos.

2ml Microcentrifuge tubestand : 2 nos.

### **Item No.11 COOLING MICRO CENTRIFUGE**

**The centrifuge is required for routine application in Biochemical lab.**

- Stepless speed regular with zero start interlock
- Digital speed indicator
- Dynamic brake
- Digital count down timer (0 to 99 minutes)
- Imbalance cut out, door interlock
- Digital temperature cum indicator
- Speed 20000 rpm
- Voltage supply 220-240, 50 Hz single phase
- Rotor 24 x 1.5 ml – 2 nos.
- Equipment should be quoted with the desired voltage stabilizer
- Angle heads with tapered bottom polypropylene tubes

## **Item No. 12 GERMINATION PAPER (Roll Towel)**

Size	: 45 cm. x 28 cm.
PH.	: 6 to 7.5
Capillary Rise & Absorptivity	: Rise of 30mm in a minute (10 mm wide paper strip Immersed in water to a depth of 20 mm water)
a. Basic Mass	: 95-100 gm/m <sup>2</sup>
b. Burstening strength	: 2.0 kg/cm <sup>2</sup>
c. Ash Content	: Maximum by Mass 1.50%

Paper should be brown, coloured with non-toxic & water insoluble dye. Paper should possess creped surface and open porous formation & be free from toxic substances that may be injurious to the germinating seedling. Paper should be free from fungi and bacteria. Paper should hold sufficient moisture during the period of test & should possess sufficient strength to resist wear & tear during handling the test. Texture of the paper should be such that roots of germination seedling will grow on & not in to the paper. Good bursting strength so that paper does not tear while testing bold size seeds fiber composition to be 100% chemical wood, cotton or vegetable cellulose.

### **NOTE :**

1. 12 sheets of roll towels germination paper should be attached as sample with the tender to test the quality of paper for germination.
2. Each bundle of 25 kg should be well identified with batch year of the supply along with the good packing material to protect the content from dirt, damage & moisture during storage.
3. If paper found sub-standard or defective during course of testing it has to be replaced by supplier at his own cost & expenses within one year after purchase.
4. The expenditure incurred for the testing of Germination paper in recognised test House or NSRTC (CSTL) Varanasi will be borne by the Supplier will be deducted from the payment.