

*Total No. of pages in tender document 28 (Twenty eight ) pages*

TENDER FORM



**Acharya N.G. Ranga Agricultural University  
REGIONAL AGRICULTURAL RESEARCH STATION  
TIRUPATI- 517502, CHITTOOR DT.**

**NOTICE INVITING TENDER (Online version)**

<b><u>Sl.No.</u></b>	<b><u>Item</u></b>	<b><u>Description</u></b>
1.	Department Name	PHETC, Regional Agricultural Research Station, Tirupati
2.	FILE / NIT Number	File No. 1871/Admin.III/2019
3.	Tender Subject	“Strengthening of Post Harvest Technology Centre for Primary Processing and Value Addition”.
4.	Cost of Tender Document	Not applicable
5.	Tender Type	Open
6.	Tender Category	Products
7.	EMD Amount for provisions(INR)	2% of the Bid value
8.	EMD payable:	The Associate Director of Research, RARS, Tirupati payable at Tirupati on any nationalized bank only
9.	Bid Document Downloading Start Date	<b>04.09.2021,10.00 AM</b>
10	Bid Document Downloading End Date	<b>18.09.2021,12.00 PM</b>
11.	Last Date & Time for Receipt of Bids online	<b>18.09.2021, 04.00 PM</b>
12.	Submission of all the uploaded documents (Hard Copies) at the Regional Agricultural Research Station, Tirupati on or before	<b>21.09.2021, 04.00 PM</b>
13.	Technical Bid Opening Date and Time(Qualification and Eligibility Stage)	after finalization of technical bid
14.	Price Bid Opening Date and Time (Financial Bid Stage)	Regional Agricultural Research Station, Tirupati
15.	Place of Tender Opening	Associate Director of Research, Regional Agricultural Research Station, Tirupati.
16.	Tender Inviting / Opening authority	<a href="mailto:adr.rarstpt@angrau.ac.in">adr.rarstpt@angrau.ac.in</a> , <a href="mailto:ao.rarstpt@angrau.ac.in">ao.rarstpt@angrau.ac.in</a>
17.	Address/E-mail id	08772248739
18.	Contact Details/Telephone	1.Bids shall be submitted online. 2.The participating bidders in the tender should register themselves free of cost on e-procurement platform in the website <a href="http://www.apecurement.gov.in">http://www.apecurement.gov.in</a> .

		<p><b><u>Note:</u></b> After tendering, all Bidders should submit the attested copies of the uploaded certificates along with original EMD to the Associate Director of Research, RARS, Tirupati <u>on or before 21.09.2021 by 04.00 PM</u>, failing which their tender will be summarily rejected.</p> <p><b>Transaction fee on e-Procurement Platform(Corpus fund):</b> All the participating bidders shall pay a transaction fee (non-refundable) as mentioned in the NIT payable to M/s APTS, Vijayawada and through on line. (0.04% of estimate contract value + GST as applicable).It is mandatory for all the participant bidders from 20.08.2020 to pay a Non-refundable Transaction fee electronically to the M.D., A.P.T.S, Vijayawada by the service provider through "Payment Gateway Service on E-Procurement platform".</p> <p>The Bidder shall authenticate the bid with his digital certificate for submitting the bid electronically on e-Procurement Platform and the bids not authenticated by Digital certificate of the bidder will not be accepted on the e-Procurement platform</p>
19	Procedure for Bid Submission	AS PUBLISHED IN THE TENDER DOCUMENT
	General Terms and Conditions and specifications of the equipment/Items	

Sd/-L.Prasanthi

Associate Director of Research  
Regional Agricultural Research Station  
TIRUPATI

**ACHARYA N.G.RANGA AGRICULTURAL UNIVERSITY**  
**REGIONAL AGRICULTURAL RESEARCH STATION, TIRUPATI**



**E-PROCUREMENT NOTICE**

**Tender Notice No. 556/RAFTAAR-RKVY/ARS,PPL/2019**

**Date:28.08.2021**

E- Procurement tenders are invited from the manufacturers or their authorized dealers or reputed firms for Supply of Equipments for “Strengthening of Post Harvest Technology Centre for Primary Processing and Value Addition” RARS , Tirupati.

Details are as follows:-

1)	Tender document online opening date	04.09.2021 by 10.00AM
2)	Tender document download online closing date	18.09.2021 ,12.00 PM
3)	Last date for Bid- Submission Online	18.09.2021, 04.00PM
4)	Submission of all the uploaded documents (Hard Copies) at the Regional Agricultural Research Station, Tirupati on or before	21.09.2021, 04.00 PM

- Bidders shall have GST Registration (for details log on to [www.apts.gov.in](http://www.apts.gov.in))
- For details visit [www.apecurement.gov.in](http://www.apecurement.gov.in)

For any clarification, please contact:

CONTACT: 0877-2248739

Sd/-L.Prasanthi  
Associate Director of Research  
Regional Agricultural Research Station  
TIRUPATI

## **GENERAL TERMS AND CONDITIONS**

1. Tenders will be accepted through on-line up to **18.09.2021 until 04 PM** by the Associate Director of Research, Regional Agricultural Research Station, Tirupati for the supply of Scientific equipment to Regional Agricultural Research Station, Tirupati, as per the details in **Annexure-I**.
2. All the interested bidders have to mandatorily log on to e-procurement web site through Secure mode only and submit their bids using digital certificates (signing certificate – single key pair) obtained from Andhra Pradesh Technology Services Ltd. [APTS – Sub CA] in-compliance to Chapter III of IT Act 2000. The details and procedure for obtaining digital certificates is given at <https://tenders.approcurement.gov.in>.
3. The tenders are invited for the supply of Scientific equipment to Regional Agricultural Research Station, Tirupati as per the details in **Annexure-I**.

## **ELIGIBILITY TO PARTICIPATE IN TENDERS**

1. Manufacturers or their authorized Dealers or reputed firms are eligible to quote in this Tender. Authorized Dealers should attach Letter of Authority from the Principal manufacturer to quote in this Tender.
2. The Dealers/Makers should be registered firms and should have authorization certificate from principals in case representation of the international firm.
3. The Tenderer shall supply good quality items as per Standards.
4. The Associate Director of Research, Regional Agricultural Research Station, Tirupati reserves the right to reject the tender of blacklisted companies and those companies whose past performance with the Regional Agricultural Research Station, Tirupati was unsatisfactory due to delayed / erratic supplies, frequent product failures etc.,

## **SUBMISSION OF THE ON-LINE TENDER FORMS**

Tenders have to be submitted in two parts in ONLINE in the prescribed proforma i.e., Technical Bid (Part-I) and Financial Bid (Part-II).

1. Financial Bids of those Tenderers who qualify in Technical Bid will only be considered for finalization of the tender.
2. The Tenderer may please note that all the columns in the Technical Bid are to be filled in meticulously with precision, with documentary evidence wherever necessary.
3. All the required documents / enclosures / literature / technical catalogs etc., have to be uploaded & attached along with Technical Bid (Part-I of the Tender) only. Technical catalogues for quoted item is essential. Tenders submitted without technical literature of the item will be summarily rejected. Eligibility for Financial Bid (Part-II of the Tender) will depend on the outcome of documents uploaded / electronically attached to Technical Bid

**THE SCHEDULES FOR OPENING OF TENDERS THROUGH ONLINE ARE:**

22.09.2021 at 02.00 PM	Opening of Technical Bids i.e. Part-I
	Financial bid shall be opened after finalization of technical bid

1. The dates scheduled for RECEIPT and OPENING of tenders are fixed and will not be changed under any circumstances. However, the Associate Director of Research, Regional Agricultural Research Station, Tirupati reserves the right of postponement of the date of opening of Tenders or date of opening of financial bids in the event of any unforeseen reasons.
2. If for any unforeseen reasons, the last date for submission of tenders and opening of Tenders happens to be a holiday, the notified dates automatically get postponed to next working day.
3. The Associate Director of Research, Regional Agricultural Research Station, Tirupati is “Not Responsible” for non-receipt of tenders or late uploading of tenders on online for any reason, whatsoever.
4. Failure to fill and sign the declaration and check slip shall make tender invalid.

**DOCUMENTS TO BE ELECTRONICALLY ATTACHED:**

1. All the documents are arranged in the serial order, (*Serial Numbers and Page Numbers should be indicated on the right side top of the corner*) then uploaded to the e-Procurement web site i.e., <https://tenders.apesprocurement.gov.in>.

Sl.No	Code No.	Name of the Document
1.	E-I	Declaration Form (Annexure-II)
2.	E- II	Manufacturing License / Authorization letter from the Manufacturing firm
3.	E- III	Earnest Money Deposit
4.	E- IV	VAT/Sales Tax/GST Clearance Certificate or payment particulars for preceding two years along with supporting Documents. (2019-20 & 2020-21)
5.	E- V	Annual Turnover Assessment order for the preceding two years (2019-20 & 2020-21) certified by Commercial Tax Officer / Chartered Account
6.	E- VI	Copies of balance Sheet, Profit and loss Account for last two years i.e. (2019-20 & 2020-21) duly certified by the Auditor
7.	E – VII	Copy of GST Registration Certificate
8.	E-VIII	Users list for the item/ equipment during past 4 years
9.	E- IX	BIS / ISO/ CE issued by the Competent Authority
10.	E-X	APSSIDC/NSIDC/MSME Certificate, if applicable
11.	E- XI	Government Ownership Certificate, If applicable
12.	E- XII	List of service centers with contact details for each of the equipment

2. The Tenderers are requested to submit the following for verification on or before **21.09.2021 until 04.00 PM physically or by post**. The Associate Director of Research, Regional Agricultural Research Station, Tirupati is not responsible for any postal delay.
  - a) Check slip of all the documents uploaded
  - b) Copies of all the documents, which were uploaded

*Note: This is only for cross verification of the uploaded documents. Any required document failed to upload, the bid shall become invalid, even though documents are produced physically.*

3. All the enclosed documents shall be in English or Hindi or Telugu, *If Any Document is Produced in any Language Other than English or Hindi or Telugu, True Translation copies of Such documents in English Shall be enclosed duly attested by a Gazetted Officer.* Failure to submit English translation of such documents shall make tender invalid. All Originals are to be presented at the time of scrutiny for verification.

### **TRANSACTION FEE**

All the participating bidders shall pay a transaction fee (non-refundable) to M/s APTS, Hyderabad and through on line. (0.04% of estimate contract value + GST as applicable). It is mandatory for all the participant bidders from 20.08.2020 to pay a Non-refundable Transaction fee electronically to the M.D., A.P.T.S, Vijayawada by the service provider through "Payment Gateway Service on e-Procurement platform".

### **EARNEST MONEY DEPOSIT (EMD)**

1. Earnest Money Deposit as indicated below in the form of crossed demand draft / pay order drawn on any scheduled bank in favor of The Associate Director of Research, RARS, Tirupati and this E.M.D. The E.M.D. of unsuccessful tenderers will be returned after signing the agreement with the successful tenderers.

Particulars of EMDs :2% of the Bid value.

2. All the bidders shall invariably upload the scanned copies of DD/pay order towards EMD along with the bid, in e-procurement platform and this will be the primary requirement to consider the bid responsive.
3. The DD/pay order should be deposited to this office while producing hard copies for verification.
4. Cheques, Cash deposits, Term Deposits or Fixed Deposits will not be accepted towards Earnest Money Deposit.
5. However the exemption of Earnest Money Deposit will be given to Small Scale Industrial Units, Registered with the Government of Andhra Pradesh and the National Small Scale Industries Development Corporation, New Delhi or the firms with specific exemption orders issued by competent authority of Government of Andhra Pradesh or Government of India. The order should be uploaded in the e-procurement platform in place of DD in case of any such claim.
6. The items permitted by S.S.I. Registration Authority will only be considered for manufacturing aspect only. IF ANY FIRM QUOTES ITEMS OTHER THAN THOSE COVERED UNDER S.S.I. REGISTRATION, E.M.D. SHALL ACCOMPANY THE TENDER. Failure to enclose E.M.D. shall make such of those items not covered under S.S.I. Certificate invalid for consideration.
7. Earnest Money Deposit of other tenders deposited with this office during any period of time shall not be considered for this tender.

### **SECURITY DEPOSIT**

1. The successful Tenders(s) shall within 7 days, after the Associate Director of Research, Regional Agricultural Research Station, Tirupati written notice of acceptance of the Tender has been posted to him or them, deposit with the Associate Director of Research, Regional Agricultural Research Station, Tirupati a sum of rupees@ 2% of the cost of items inclusive of all taxes (or the authority may fix the amount according to the value of the tender) as a security for the fulfillment of the contract. Performance bond guarantee can also be considered, as security deposit in addition to the EMD. The Earnest Money Deposit/Security Deposit shall carry no interest. The Security Deposit to be deposited will be in addition to the Earnest Money deposit.
2. The Associate Director of Research, Regional Agricultural Research Station, Tirupati reserves the right to forfeit and confiscate Earnest Money Deposit, if the successful Tenderer(s) fail to pay the Security Deposit which is required under the Terms and conditions of this Tender.

### **FORFEITURE / REFUND OF THE EARNEST MONEY DEPOSIT / SECURITY DEPOSIT**

1. In case the selected Tender(s) does not supply the stores at the quoted rates within the period of contract and commits any breach of any one or more of these terms and conditions, the Earnest

Money deposited by Tenderer(s) will be forfeited by The Associate Director of Research, Regional Agricultural Research Station, Tirupati.

2. Earnest Money of the unsuccessful Tenderer(s) shall be refunded signing the agreement with the successful tenderers by the ANGRAU, Guntur. No interest is payable by The Associate Director of Research, Regional Agricultural Research Station, Tirupati on such deposits.
3. The Earnest Money and Security money deposited by successful Tenderer(s) shall be retained by The Associate Director of Research, Regional Agricultural Research Station, Tirupati till three months after the expiry of the contract period, i.e., 12 months from the date of acceptance of the tender or the date on which the supply which may arise in consequence of repeat orders placed during the 12 months for which the rates quoted are to remain valid.
4. On due performance and satisfactory completion of the order in all respects during the contract period, the Earnest Money Deposit and the security deposit will be refunded to the Contractor(s) without any interest within a period of 3 months with effect from the date of receipt of a request to this effect from the supplier(s).

#### **VAT/SALES TAX/GST CLEARANCE CERTIFICATE**

Attested Photo Copy of GST / VAT / Sales Tax Clearance Certificate and Sales Tax Payment particulars obtained from the competent sales tax authority of the area concerned for the years (2018-19 & 2019-20) shall be attached. Certificates older than that shall not be considered. Those not liable for GST/VAT/Sales Tax payment under relevant rules should produce a certificate to that effect from the competent authority.

#### **MANUFACTURING LICENSE:**

1. Attested Photocopy of the Latest Manufacturing License, which is in vogue shall be enclosed. If the firm has applied for renewal of license, necessary authenticated proof from the concerned Licensing Authority shall be furnished. Licenses issued for test and Analysis will not be considered. The product/item quoted by the tenderer shall be underlined with “Red Ink”. The License number and date should also be underlined with ‘Red Ink’. The abstract of the product quoted should be enclosed. The Manufacturing License should clearly indicate a minimum of two years of manufacturing and marketing experience. Items without the proof of two years of Manufacturing and Market experience will summarily be rejected.
2. The tenders received without proper license, authenticated list of item covered by license and authorization letters from actual / original manufacturers are liable for rejection without any further notice.
3. Tenderers should enclose documents to show that manufacturing Unit has been recognized with the ISO Certificate etc.
4. Tenderers should enclose documentary evidence of having manufactured and marketed the product for two years.

#### **BIS/ISO/CE etc CERTIFICATES (whichever is applicable):**

1. Tenderer should produce BIS / ISO/ CE etc. certificate (wherever applicable) issued by the concerned Licensing Authority.
2. Tenderers should enclose BIS / ISO Certificate for products wherever applicable.
3. The certificates whichever is applicable and claimed should be furnished with supportive documents.

#### **TERMS AND CONDITIONS FOR COMMERCIAL AGREEMENT:**

1. The details of the required items are shown in e-procurement Web Application. Rates should not vary with the quantum of orders or destination.
2. The rates quoted shall be in Indian Rupees only and must be expressed both in figures and words as well. The rate of each category of item should be quoted. The rates quoted should be inclusive of all the applicable taxes and “FOR destination” (destinations for the items are mentioned in Annexure-I). However, the applicable taxes and packaging costs if any etc. should be clearly indicated in the price bid.
3. Tenderers who are supplying the items offered in this tender to other states shall enclose the copies of latest invoices to support of their claim that the rates quoted to ANGRAU are comparable.



4. No Insurance charges will be paid by the Department / Indenter.
5. The rates quoted by the tenderer shall not exceed the controlled rates, if the Government controlled rates are in force on the date of submission of tenders. In the absence of controlled prices, the tenderer shall quote reasonable price applicable to bulk purchases.
6. All rates quoted by the bidder should be valid for a period of One year from the date of acceptance of the lowest Bid.
7. The rates offered in the tender shall not exceed the M.R.P. as well as the lowest price at which the firm sells the product of identical description to any other department or organization or person anywhere in the State / neighboring states of A.P. If such incidences of quoting higher rates to this RARS, Station come to the notice at any time, during the course of Rate Contract for the rest of the Rate Contract period, the Associate Director of Research, Regional Agricultural Research, Station, Tirupati reserves the right to initiate an appropriate disciplinary action against such firms including black listing them.
8. IF ARTIFICIALLY LOW RATES ARE QUOTED, the ASSOCIATE DIRECTOR OF RESEARCH, REGIONAL AGRICULTURAL RESEARCH STATION, TIRUPATI RESERVES THE RIGHT TO CROSS-VERIFY THEM AND IGNORE THEM FROM CONSIDERATION IN ORDER TO PREVENT UNETHICAL TRADE PRACTICES.
9. Ordinarily, the tendered items will be selected based on the lowest rates quoted by the firms in the Financial Bids. However, the tender committee reserves the right to select the product even with higher rates depending upon the reported performance / market reputation / efficacy of the item basing on the user reports / feedback given by the end users, ignoring the lowest rates.
10. If tenderer quotes the rates at his will, overlooking the conditions in the previous paragraphs, the tender is liable for cancellation even after approval of tender and firms will face suitable legal action for such action at any time during the Rate Contract period.
11. Rates quoted should be marked clearly with main price and taken separately. Total price after taking all the actuals will be taken as financial quote for comparison.
12. No representation towards upward revision of rates once accepted will be considered. DSIR and other certificates for custom exemption will be provided by RARS, Tirupati.
13. The rate quoted and accepted will be binding on the tenderer for the stipulated period and on no account will any increase in the price be entertained till the completion of tender period.
14. No tenderer shall be allowed at any time on any ground what so ever to claim revisions of or modifications in the rates quoted by him. Clerical error, typographical etc., committed by the Tenderers in the tender forms shall not be considered after opening of the tenders. Conditions such as "SUBJECT TO AVAILABILITY" "SUPPLIES WILL BE MADE AS AND WHEN SUPPLIES ARE RECEIVE" etc., will not be considered under any circumstances and the tenders of those who have given such conditions shall be treated incomplete and for that reason shall be summarily rejected.
15. No company / Firm which has been blacklisted either by the Regional Agricultural Research Station, Tirupati, A.P or ANGRAU or by any State Government or Central Government / Organizations shall participate in the Tender during the period of Blacklisting. If any such firm participates and came to know at a later stage, and if any firm is Black listed at a later date either by the Government of Andhra Pradesh or any other State / Central Government will not only be debarred / Black listed permanently and their security deposit /EMD whichever is available with the Department will be forfeited and any business / transactions will be stopped with their firms forthwith.
16. The indented stocks shall be delivered at respective institutes or research stations as indicated in Annexure-I at the cost of the supplier.
17. The rates should be quoted separately for each item.

### **AGREEMENT**

1. Every successful tenderer on intimation by this office shall execute an agreement on Rs.100-00 (Rupees One Hundred only) non-judicial stamp paper in the prescribed form, which will be supplied along with the list of item tentatively approved. Agreement should be typed only on one side of stamp paper with due attestation on each page.

2. In the event of failure to execute agreement in proper form along with the Security deposit by successful tenderer within (10) days, the EMD of such tenderer will be forfeited and such defaulters will forego the right to participate for future tenders for a minimum period of (3) year.

#### **DEMONSTRATION OF THE ITEMS:**

1. The Tenderer may have to arrange for demonstration of the functioning of the items as per specifications with the Associate Director of Research, Regional Agricultural Research Station, Tirupati, in case of necessity.
2. If the item is declared to be not of standard quality or not meeting the specified requirements, it will deem to be rejected. If any item supplied by the tenderer is used after supply and is subsequently found to be not as per specifications, unsound, inferior in quality or description or are otherwise faulty or unfit for use, then the cost of such item will be recovered from the tenderer, if the payment had already been made, in addition to penalty. *The approved firms shall Re-Supply the item.*

#### **OTHER CONTRACTUAL OBLIGATIONS**

1. The contract shall not be capable of being varied except by written consent by both the Associate Director of Research (purchaser) and the supplier shall not in the absence of the specific written acceptance be bound by any provisions of the supplier's quotations, offers etc., which purport to impose conditions at variance with this contract.
2. The supplier shall not sublet or delegate this contract or part thereof without the written consent of the Associate Director of Research, Regional Agricultural Research Station, Tirupati. Such consent shall not however be withheld unreasonably. But the Tenderer(s) may without the consent of The Associate Director of Research, Regional Agricultural Research Station, Tirupati purchase material as he/they does not normally manufacture.
3. The supplier shall keep confidential all matters concerning this contract and comply with all reasonable security requirements. All drawing, blocks, specifications, manuscripts, samples etc., supplied by the Associate Director of Research, Regional Agricultural Research Station, Tirupati and all copies thereof shall be returned to the Associate Director of Research when their use is terminated. In no event the supplier(s) shall permit publicity concerning this contract without the prior consent of the Associate Director of Research, Regional Agricultural Research Station.
4. Any undertaking or commitment given by or made by any Officer or the Associate Director of Research verbally or in writing does not have any validity unless it is signed again by the authority competent who concluded an agreement earlier.

#### **INSPECTION AND PACKING**

1. At all reasonable time during production and prior to dispatch of material the supplier(s) shall afford and secure for the representative of the Associate Director of Research, Regional Agricultural Research Station, Tirupati every reasonable access and facility at his plant or premises for its inspection and making of usual tests on behalf of the institute. The supplier(s) shall advise the scheme at least 7 days prior to the time when any material is ready for final inspection. The Associate Director of Research, Regional Agricultural Research Station, Tirupati will then make the inspection and subject to the material being in all respects as specified and being of sound quality and workmanship the representative of the Associate Director of Research, Regional Agricultural Research Station shall sign or countersign a certificate of inspection.
2.
  - a) The supplier(s) shall supply to the Associate Director of Research, Regional Agricultural Research Station, Tirupati on request a report from time to time as to the progress of supplies. Any delay or anticipated delay will be reported at once together with the full reasons there for.
  - b) The responsibility of procurement of transport facilities and dispatch of the stocks in good condition and as per specifications and in time/door delivery lies with the supplier(s) and they must keep up the delivery schedule at any rate.
  - c) The insurance should be done at the cost of supplier(s) as the rate quoted is all inclusive for door delivery at respective institutes or research stations as indicated in Annexure-I.
3. Should the progress in supplies be delayed due to any cause beyond the reasonable control of the supplier(s) and whether such delay or impediment occurs before or after the time for dispatch, reasonable extension of time might be granted by agreement between the parties.

4. The supplier(s) shall insert in each case 3 copies of packing list, fully item wise to show case number, contents and full description of the contents. The concerned in-charge of the stores of the respective institutes or research stations as indicated in Annexure-I at the receiving point will retain one copy with him and return the other two copies, duly signed to the supplier(s) who will append one copy of this packing list with invoices when sent to the concerned for payment.

#### **SUPPLIES AS PER SPECIFICATIONS**

1. All supplies shall be to the description and to the specifications laid down and in strict accordance with the approved samples. Deviations, if any should be clearly brought out failing which it will be normally construed that the materials offered are not to our requirements. Any special features may also be clearly brought out.
2. The decision of The Associate Director of Research, Regional Agricultural Research Station, Tirupati however shall be final as to the quality of supplies received and binding upon the supplier(s) in case, the supplier(s) supplies any other article than what is ordered such article supplied, not being approved, shall be liable to be rejected.
3. If the Associate Director of Research, Regional Agricultural Research Station, Tirupati requires any changes in specifications the supplier(s) shall use his best endeavor to comply with The Associate Director of Research, Regional Agricultural Research Station, Tirupati's wishes subject to fair fixation of prices and delivery schedule where appropriate.
4. If at any time during the term of this contract, the plans of The Associate Director of Research, Regional Agricultural Research Station changes for any reasons The Associate Director of Research, Regional Agricultural Research Station shall have the right to terminate or alter this contract by sending fifteen days notice to the supplier(s) by Registered letter. In respect of such of the material as it complete and ready for dispatch within thirty days of such notice, The Associate Director of Research, Regional Agricultural Research Station, Tirupati agrees to accept delivery thereof at the contract price and terms.

#### **CONSEQUENCE OF NON-SUPPLY AND DAMAGES**

1. All risks of loss, damage or depreciation to goods shall be upon the supplier(s) until the material is delivered at the addresses specified and in accordance with the provisions of the contract. Till the material received at the respective destination indicated by The Associate Director of Research, Regional Agricultural Research Station, Tirupati the property continues to be at the risk of the supplier(s). The mere fact that the material is delivered to transporter is no defense to the supplier(s) and the supplier(s) will be squarely held responsible for any delayed receipt of the material by the respective research stations or institutes as indicated in the Annexure-I or for loss of damage of any kind to the material in transit.
2. Assuming that the supplier(s) fails to deliver any or all the materials covered by the contract, The Associate Director of Research, Regional Agricultural Research Station, Tirupati reserves the right in addition to other legal remedies, to cancel the contract or any portion thereof and hold the supplier(s) liable for all damages sustained by virtue of the supplier(s) failing to perform the contract and consequent cancellation of the contract.
3. In the event of the supplier(s) failing to complete the supplies in time or according to the approved specifications, The Associate Director of Research, Regional Agricultural Research Station, Tirupati reserves the right to make such arrangements as it may think fit for the completion of the supplies on account of and the sole risk of the supplier(s).
4. In case the goods are not supplied according to specifications, they will be summarily rejected.
5. The time allowed for delivery of goods shall be deemed to be the essence of contract. In case the goods are not delivered to the respective addresses as indicated in the Annexure-I within the stipulated period, the Associate Director of Research, Regional Agricultural Research Station, Tirupati reserves the right to recover the liquidated damages a sum equal to 2% of the contract price of the undelivered material per week subject to a maximum of 5% of the value of undelivered material. The Associate Director of Research, Regional Agricultural Research Station, Tirupati also reserves the right to cancel the purchase order in case supplies are delayed beyond the scheduled date of delivery and to make such arrangements as he may think fit for the completion of supplies on account and at the risk of the supplier(s). The additional expenses thus incurred together with the consequential losses and also the liquidated damages shall be recovered from the supplier(s) out of his/their security deposit/Earnest Money deposit and any other amount due to him/them. The balance still if any payable by the supplier(s) shall

be paid by him/them within 7 days of notice by The Associate Director of Research, Regional Agricultural Research Station, Tirupati.

6. All invoices shall be prepared in four copies and shall be signed by the supplier(s) or his/their authorized agent(s). Every invoice shall bear a certificate to the effect that the material covered by the invoice(s) has been inspected by the supplier(s) before delivery and confirm in every way to the contract specifications and is packed in accordance with the contract requirements and further that the invoice is correct in every particular and no other invoice has been rendered previously in respect of the articles charged in the particular invoice. The invoice in triplicate along with advance stamped receipt shall be raised in the name of heads of the respective research stations or institutes as indicated in Annexure-I.
7. The payment of the bills shall be made by the heads of the respective research stations or institutes as indicated in Annexure-I duly deducting the statutory deductions, if any.

#### **PENALTIES**

1. If the successful tenderer fails to execute the agreement and / or deposit the required security deposit within the time specified or withdraws his tender after the intimation of the acceptance of his tender has been sent to him or owing to any other reasons, he is unable to undertake the contract, his contract will be cancelled and the Earnest Money Deposit deposited by him along with his tender shall stand forfeited to the heads of the respective research stations or institutes as indicated in Annexure-I and he will also be liable for all damages sustained by the heads of the respective research stations or institutes as indicated in Annexure-I by reasons of breach, such as failure to supply, including the liability to pay any difference between the prices accepted by him and those ultimately paid for the procurement of the articles concerned. Such damages shall be assessed by the heads of the respective research stations or institutes as indicated in Annexure-I, whose decision is final in the matter.
2. Non-performance of contract provisions will disqualify a firm to participate in the tender for the next three years.
3. In the event of tendered supplies failing quality test, contract with the tenderer will be suspended and purchases made from alternative suppliers. *Such firms may be black listed for three years* beginning from the year following the one in which defective supplies were detected. The tenderer shall also be liable for action under criminal law and the matter shall be notified to the concerned Licensing Authority.
4. In all the above conditions, the decision of the ASSOCIATE DIRECTOR OF RESEARCH, REGIONAL AGRICULTURAL RESEARCH STATION, TIRUPATI shall be final and binding.
5. In the event of any dispute arising out of the tender such dispute would be subject to the Jurisdiction of the Civil courts within the city of Tirupati.

#### **SETTLEMENT OF DISPUTES**

1. Any difference or dispute arising out of or in connection with this tender or acceptance thereof or the contract that may be entered in consequence thereof, shall be decided by arbitration. The Associate Director of Research, Regional Agricultural Research Station, Tirupati or his nominee shall be the sole arbitrator and the arbitrator's decision shall be final and binding on the parties. The Tenderer(s) will have no objection to such appointment on any ground whatsoever including that such nominee, in his official capacity dealt with this matter at any stage.
2. The parties hereby agree that in the event of any dispute no cause of action shall arise in their favour to approach any court unless they have resorted to and exhausted the remedy of arbitration as envisaged above.
3. The parties also do hereby agree that the contract envisaged by these terms and conditions shall be deemed to have been entered into at Tirupati alone will have jurisdiction to try and legal proceedings which may arise out of this contract. Neither party shall file any proceedings in any other court.

Sd/-L.Prasanthi  
Associate Director of Research  
Regional Agricultural Research Station  
Tirupati

**ANNEXURE-I**  
**(Technical Specifications)**

Item Code	Name of the item	Specifications and parameters	Quantity (No.)
PHETC-1	<b>MODIFIED ATMOSPHERE PACKAGING SYSTEM</b>	<p><b><u>DIGITAL GAS MIXER</u></b></p> <ul style="list-style-type: none"> <li>• <b>Number of Gases</b> – 3 Gases Module for O<sub>2</sub>, CO<sub>2</sub> &amp; N<sub>2</sub></li> <li>• <b>Mixture Adjustment:</b> Digital</li> <li>• <b>DIGITAL GAS MIXER</b> - 7” Large Digital Display with Touch screen Human interface</li> <li>• <b>Flow rate:</b> Upto 05 – 150 Litre /minute</li> <li>• <b>Max outlet pressure</b> - Up to 4 Bar</li> <li>• <b>Standard inlet pressure</b> - 9 bar</li> <li>• <b>Operating Mode:</b> Buffer tank</li> <li>• <b>Accuracy:</b> Better than +/- 2 % absolute within a flow range of 15 – 100% and mix settings of 10 – 90%</li> <li>• <b>Alaram:</b> Acoustic gas inlet pressure alaram with indication per gas</li> <li>• <b>Cabinet:</b> Stainless Steel</li> <li>• Easy Interface with Packaging Machines</li> </ul> <p><b><u>PACKAGING MACHINE WITH GAS FLUSHING.</u></b></p> <ul style="list-style-type: none"> <li>• Stainless steel housing and chamber.</li> <li>• 8m<sup>3</sup> / h pump.</li> <li>• Simple sealing.</li> <li>• Sealing length: 270 mm</li> <li>• Digital electronic panel.</li> <li>• Transparent flat lid.</li> <li>• Chamber dimensions: 290x370x100mm.</li> <li>• Vac – stop.</li> <li>• Motor: 220V/1ph/50 – 60Hz.</li> </ul> <p><b><u>HEAD SPACE OXYGEN &amp; CARBONDIOXIDE ANALYSER</u></b> <b>(module for O<sub>2</sub> /CO<sub>2</sub> Analysis)</b></p> <ul style="list-style-type: none"> <li>• O<sub>2</sub>: Optical Sensor</li> <li>• CO<sub>2</sub> : Infrared single beam sensor</li> <li>• Sample volume for O<sub>2</sub>&amp; CO<sub>2</sub> : 23ml</li> <li>• Sample time O<sub>2</sub>&amp; CO<sub>2</sub> : 2 – 10 sec</li> <li>• Measuring Range : 0-25 % Oxygen &amp; 0 – 100% (on CO<sub>2</sub> sensor)</li> <li>• Resolution: 0.1% Oxygen and +/- 2% carbondioxide</li> <li>• Sensor Accuracy: better than +-0.1% oxygen and better than +-2% carbondioxide</li> <li>• Should also supply 10 litres buffer tank, regulators for oxygen, carbon dioxide and nitrogen &amp; heater for carbon dioxide with cylinders</li> </ul>	One No.
PHETC-2	<b>Millet Ravva maker cum grader with extra sieve</b>	<ul style="list-style-type: none"> <li>• Capacity 300 kg/hr</li> <li>• Purpose Splitting Millets into small granules</li> <li>• Power Requirement 3HP - 3ø Electric Motor</li> <li>• Over all dimension Length x Width x Height = 1500 mm x 920 mm x 1800 mm</li> </ul>	One No.

		<ul style="list-style-type: none"> <li>Type: Continuous Type</li> <li>Material of construction may be Mild Steel</li> </ul>	
<b>PHETC-3</b>	<b>Pulveriser</b>	<ul style="list-style-type: none"> <li>Capacity: 100 kg/hr</li> <li>Purpose: Pulverizing food grains into fine powdered flour</li> <li>Power Requirement 15HP - 3ø Electric Motor</li> <li>Over all dimension Length x Width x Height = 1530mm x 730mm x 1250mm</li> <li>Type: Continuous Type</li> <li>Material Contact Should be Stainless Steel</li> </ul>	<b>One No.</b>
<b>PHETC-4</b>	<b>FLOUR SIFTER</b>	<ul style="list-style-type: none"> <li>Capacity: 250 kg/hr</li> <li>Purpose: To separate the fine flour from the course one</li> <li>Power Requirement 2HP - 3ø / 1ø Electric Motor</li> <li>Over all dimension Length x Width x Height = 1220 mm x 575mm x 1800mm</li> <li>Type: Continuous Type</li> <li>Material Contact should be Stainless Steel</li> </ul>	<b>One No.</b>
<b>PHETC-5</b>	<b>FLOUR BLENDER</b>	<ul style="list-style-type: none"> <li>Capacity: 50 kg/hr</li> <li>Purpose: Blending different flours into a homogenous mixture</li> <li>Over all dimension Length x Width x Height = 1100mm x 790mm x 1250mm</li> <li>Power Requirement: 1 HP - 3ø / 1ø Electric Motor</li> <li>Type: Continuous Type</li> <li>Material Contact: Stainless Steel</li> </ul>	<b>One No.</b>
<b>PHETC-6</b>	<b>Vacuum Frying Machine</b>	<ul style="list-style-type: none"> <li>Loading Capacity – 5 kg /batch</li> <li>Output Capacity - Depends on moisture content</li> <li>Total dimensions : 1220 x 1820 x 1250 mm</li> <li>Burner: - 2 Burner - LPG Stove</li> <li>Volume of Cooking Oil : 55 - 60 liters</li> <li>Cooling: Water Circulation</li> <li>Deoiling : Independent Spinner</li> <li>Vacuum: Water Jet pump</li> <li>Power: 1kW</li> <li>Temperature Control : Digital Automatic</li> <li>All the surfaces coming in contact with the food, edible oil &amp; vapour condenser will be made of AISI 304, TIG welded and bright polished.</li> <li>The Standard supply includes: Frying machine, vapour condenser, vacuum pump, and de-oiler.</li> </ul>	
<b>PHETC-7</b>	Freeze Dryer	<p>Floor standing tray type Freeze Dryer with 0.42 sq. m surface area</p> <p>Ice holding capacity : 2.5 Ltrs</p>	<b>One No.</b>

		<p>Product chamber: Rectangular drying chamber of size : 400W x 300H x 400D Front door made of thick acrylic No. of Shelf : 4 Inter-shelf distance : 50mm Shelf size : 350 x 300 mm Total product shelf area: 0.42 sq.m. Shelf heating : Pad heaters (atm to +70C)</p> <p>Condenser chamber (Cold trap) Capacity: 2.5 kg/24 hrs. Ultimate Temperature: -50C ± 5C at 20C ambient Front door made of thick acrylic</p> <p>Vacuum pump Two stage, oil sealed, 250 LPM</p> <p>Indications: PID controller for shelf temperature control Digital pirani vacuum indication. Digital condenser temperature indication Digital temperature indicator for product (tray) Temperature resolution: 0.10C Refrigeration and vacuum ON /OFF Top made of stainless steel and other exterior made of powder coated mild steel. Built in CFC Free refrigeration system Facility for water drain. Power supply , 230 V, 50 Hz, 1 phase</p> <p><u>Specification of the vacuum pump:</u></p> <ul style="list-style-type: none"> <li>• Displacement: 250 L/min</li> <li>• Ult. Vacuum = <math>2 \times 10^{-3}</math> mbar. (Ballast closed) at pump head</li> <li>• Double Stage, oil sealed rotary vane type.</li> <li>• With built-in an, suck- back mechanism.</li> <li>• Built in gas ballast.</li> <li>• High water vapour handling capacity.</li> <li>• One refill of Oil</li> <li>• Exhaust oil mist eliminator</li> <li>• Mains 220/230 V 50 Hz single phase</li> </ul>	
<b>PHETC-8</b>	<b>Deep Freezer</b>	<ul style="list-style-type: none"> <li>• Freezer should be of 100 Liters capacity, with a compact design with minimum footprint, so that it can be accommodated in the convenient spaces in the lab.</li> <li>• System should have Programmable operating temperature from -50°C up to -86°C with 1°C increment</li> <li>• System should have reduced energy consumption It should also have a high efficiency compressor &amp; condenser which would also reduce energy consumption.</li> <li>• System must be energy efficient and hermetically sealed Refrigeration system of 2-stage cascade cooling system; Compressors used should be Commercially available, heavy duty compressors with minimal failure rate. Defrost method should be Manual</li> <li>• Freezer must use Green Sustainable Natural Gas/ HydroCarbon (HC) refrigerants HFC-free, CFC-FREE, HCFC-FREE nonflammable refrigerants, and refrigeration. Refrigerant charge</li> </ul>	<b>One No.</b>

		<p>High Stage: R290, Low Stage: R170</p> <ul style="list-style-type: none"><li>• System should have Warm up time of 3 hrs or longer from -85 °C to -50 °C (with freezer 2/3 full) and 18 hrs or longer from -85 °C to 0 °C (freezer 2/3 full) to indicate superiority of the Insulation system</li><li>• Freezer must have two compartments with two inner doors for easy handling of samples; both inner and outer doors should be Insulated and sealed.</li><li>• System should have a Door open recovery (freezer set to -80 °C, recovery to -80 °C) after 15 sec door opening of 19 min or lesser indicative of the insulation &amp; sealing efficiency</li><li>• Ambient (20°C) to -80°C Pull down time should be less than 140 min or lesser</li><li>• Freezer should accommodate the sample size of 2” in vials) and racks</li><li>• Freezers should have Quick-access heated air Vent Port conveniently located at left side and manually operated for convenience.</li><li>• Freezer should have Easy-access air filter located in front for convenient cleaning without requirement for tools</li><li>• Freezer Construction should be Stainless steel grade 304 2B for Interior chamber and Powder-coated steel for Exterior</li><li>• Should have Door handle Lock system (key), Power switch and Battery switch Secured by lockable plate to keep out unauthorized users</li><li>• Freezer must have battery back-up and intuitive touchpad controls for safe and easy handling.</li><li>• Audible and visible alarms for Alarms Adjustable high/low temperature, power-fail, battery low, filter clean and fault alarm.</li><li>• System should have Cabinet uniformity (freezer set to -80 °C) +7.7 °C (-0.0 °C) or lesser indicative of superior electronic control systems utilized for optimal sample safety</li><li>• Freezer must have ISO 9001 standard quality test requirements and IEC 61010 Electrical safety CE &amp; UL certified.</li></ul> <p>Freezer should have electric supply of Electrical rating (1 phase) 230 V/50 Hz, Current rating 5.0 A; WEEE, ROHS, REACH agency listing &amp;</p>	
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		Certification. All components tested to CE Specification & Certification	
<b>PHETC-9</b>	<b>Potable Colour Reader</b>	<ul style="list-style-type: none"> <li>Measures the color and Whiteness of foods or raw materials in paste, solid, or powder form.</li> <li>Should have LCD screen which displays measurement results from one of the color spaces/colorimetric indexes such as <math>L^*a^*b^*</math>, <math>L^*C^*h</math>, <math>Yxy</math>, Munsell (D65), WI (CIE/ASTM E 313-96), Tint (CIE/ASTM E 313-96), YI (ASTM E 313-96)</li> <li>Instrument can be utilized in order to control color from raw materials through the process of manufacturing</li> <li>It should be both battery operated and connected to AC adapter for external power with battery performance of approx 2000 measurements at 10 Sec. intervals.</li> <li>Instrument should be user-friendly and does not require any unneeded processes.</li> <li>Should have calibration and measure functions with using standard illuminant D65 and 10° observer.</li> <li>Light Source : Pulse Xenon lamp light source with longer life and stable reading.</li> <li>Should have an accessory of protective glass cap for direct measurement of pastes, powders or wet objects without filling a cell.</li> <li>Built-in storage for up to 1,000 measurements</li> <li>On board Utility Software application</li> <li>Provision to Printer to get hard copies of data via USB 2.0</li> <li>Illuminating / Viewing geometry : 8° : de (8°illumination angle/diffuse viewing: specular component excluded) (conforms to DIN 5033 Teil 7, JIS Z 8722 condition d, ISO 7724/1, CIE No. 15, ASTM E 1164)</li> <li>Detector : Silicon photocells</li> <li>Measurement time : Approx. 1 sec</li> <li>Measurement Area : Approx. : ø8 mm</li> <li>Repeatability : Standard deviation within <math>\Delta E^*ab</math> 0.1 (when a white calibration plate is measured 30 times at 10-second intervals)</li> <li>Weight should be less than 450 g with ought</li> </ul>	<b>One No.</b>

		<p>batteries.</p> <ul style="list-style-type: none"> <li>• Color Reader with handheld /Portable model which fits comfortably in the palm of our hand.</li> <li>• It should be suitable for field and lab application.</li> </ul>	
<b>PHETC-10</b>	<b>Popcorn Machine</b>	<ul style="list-style-type: none"> <li>• Model: Domestic model, Electrical Type</li> <li>• Should be table top model</li> <li>• Bowl capacity: 300g</li> <li>• Material of Construction – SS 304</li> </ul>	One No.
<b>PHETC-11</b>	<b>Vertical Laminar Air Flow Chamber</b>	<ul style="list-style-type: none"> <li>• The Vertical Laminar Airflow should provide product protection within the work area, should be is confined by Stainless Steel grade 304 side panels and front sliding sash.</li> <li>• Room air should be taken in from the top of the cabinet through a Pre-filter with 90% efficiency which traps particles of 10μ and above.</li> <li>• Air should spread evenly across the HEPA filter, thereby providing a stream of clean air within the work area of the cabinet, should remove all contaminated air from the interior.</li> <li>• Should have Perforated Stainless Steel diffuser screen, protects the HEPA filter and maintains uniform airflow velocity within the work area.</li> <li>• Size: 4' x 2' x 2'</li> <li>• Should have easy disassembly for access through a small door.</li> <li>• Material: Anti-Microbial Powder Coated (60-80μ) Galvanized Iron Sheet with Epoxy Polyester Thermosetting Sheet</li> <li>• Pressure Gauge: Minihelic Gauge (Dwyer /Aerosense make) Made in USA</li> <li>• Max. Work Area: Maximum coverage for easier hand movements inside the cabinet. The Unit has a 10° Slope for operator's comfort.</li> <li>• Pre-Filter: 10μ with efficiency of 90% (washable HDPE media with FRP PU / SS 304 frame)</li> <li>• Supply Filter: Mini Pleat HEPA Filter Efficiency 99.999% @ 0.3 μm (H-14) High Efficiency Particulate Air</li> <li>• Motor Assembly: Variable speed motor</li> <li>• Cleanliness: ISO Standard 14644- 1 Class 5</li> <li>• Front Sash: Sliding 6mm frameless glass sash.</li> <li>• Should be CE approved</li> <li>• Noise Level: Less than 60 Db at 1 Meter from the face of the filter</li> <li>• Air Velocity: 90FPM at 6" from face of the filter +/- 20 Feet Per Minute</li> <li>• Ultra Violet Lighting: 3 ft length G30T8 30 Watt "Sankyo Denki/Philips make</li> <li>• Should have wheels for proper movement inside the laboratory.</li> <li>• Should provide microprocessor controller (Ex Automatic U V off after certain time set)</li> <li>• Castor wheels with locking system should provided.</li> </ul>	One No.
<b>PHETC-12</b>	<b>Autoclave</b>	<ul style="list-style-type: none"> <li>• Autoclave Capacity -110 to 130 ltr.</li> <li>• The chamber of Vertical Autoclave should be manufactured as per ASME standards.</li> </ul>	One No.

		<ul style="list-style-type: none"> <li>• The Vertical Autoclave should work on the domestic power supply of : 230 V AC, 50 HZ, Single phase.</li> <li>• The units internal chamber, cover lid and all wetted parts should be fabricated from stainless steel of 304 grade.</li> <li>• The Vertical Autoclave's all joints should be smooth finished for crevice free internals.</li> <li>• The chamber should be hydrostatically tested at 1.5 times of its working pressure.</li> <li>• The outer body should be made up of MS sheet with heat cured epoxy coating on both sides.</li> <li>• The lid should be equipped with single lever lock mechanism and lever handle moulded from industrial plastic.</li> <li>• Lid should be provided with auto purge cum vacuum breaker valve and a manually operable valve for exhaust.</li> <li>• Should have stainless steel pressure gauge with dual range dial display in KPA and PSI along with a co-related temperature scale for steam in degrees Celsius.</li> <li>• The operations of the unit should be controlled by a microprocessor based controller.</li> <li>• The user should be able to set the temperature up to 122°C in steps of 0.1°C each.</li> <li>• The user should be able to set the Sterilization hold time in steps of 1 minutes each.</li> <li>• The timer range should be up to 95 mins.</li> <li>• In case of abrupt power failure / switching off, the Last Cycle which was set should remain in the memory.</li> <li>• The display for the parameters should be Two line Alpha-Numeric digital display.</li> <li>• The unit should be equipped with Low Water Detection unit and should give Audio- Visual alarm in case of Low Water in the chamber and cut off the supply to the heater.</li> <li>• The unit should have safety valve to protect the equipment in case of overpressurisation.</li> <li>• The Lid should be equipped with pressure interlock device. Also the heater should not start if the Lid is open.</li> <li>• The unit should be provided with safety cut-out for high temperature.</li> <li>• The unit should give indication by audio-visual alarm on completion of set autoclave cycle.</li> <li>• The electrical safety should be ensured by inbuilt MCB.</li> <li>• The unit should be mounted on 04 Nos. PU coated castors out of which atleast 2 should have locking mechanism</li> <li>• The Vertical Autoclave should be CE certified.</li> <li>• Manufacturer shall be ISO 13485 certified &amp; should submit photocopy for the same.</li> <li>• Local Service Setup for prompt and efficient post-sales support.</li> </ul>	
<b>PHETC-13</b>	<b>Refrigerated Centrifuge</b>	<ul style="list-style-type: none"> <li>• System should have a maximum Speed of 30,130 x g / 17,500 rpm, with a brushless motor</li> </ul>	One No.

		<ul style="list-style-type: none"><li>• Temperature range should be from -11°C to 40°C and should be able to maintain 4°C at maximum speed</li><li>• System should be capable of using both fixed angle and swing bucket rotor</li><li>• System should be possible to use aerosol tight rotor aerosol tightness of rotor should be certified by a third-party agency</li><li>• System should be able to accommodate 48 number of 1.5/2 mL tubes</li><li>• System should to accommodate 5 mL conical tubes</li><li>• System should have rotors for 15/50 mL conical tubes and MTPs</li><li>• System should be supplied with metallic autoclavable rotors and lids</li><li>• System should have an in-built condensate drain to prevent water accumulation</li><li>• System should have fast temperature function for rapid cooling of centrifuge</li><li>• System should have a programmable temperature function to allow automatic precooling based on pre-programmable time and date</li><li>• System should be possible to store 50 programs with 5 quick access program keys</li><li>• Speed setting should be possible in both RPM and RCF</li><li>• System should be able to start the timer count only when the set centrifugation RPM is reached, to support the short spin protocols</li><li>• System should possess a separate short spin key for brief spin with user defined speed for brief spinning</li><li>• System should be possible to program compressor shut off after 8 hours of non-usage of the centrifuge</li><li>• System should have the flexibility to accommodate rotors for different formats of tubes starting from 0.2 mL PCR tubes up to spin column tubes</li><li>• System should have automatic rotor recognition facility to automatically recognize and set maximum speeds upon rotor change</li></ul>	
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		<ul style="list-style-type: none"> <li>• Rotor lids should have a QuickLock-system for quick opening and closing of rotor lid</li> <li>• System should be possible to perform gentle acceleration and deceleration using dedicated key</li> <li>• System should have lock function preventing program setting overwritten or changing</li> <li>• System should have menu-driven, multi lingual operation menu with large backlit display</li> <li>• System should also have extended display to show the set and current parameters</li> <li>• Noise levels should be &lt;54 db(A) for quite operation</li> <li>• Should have facility to validate speed temp and time with certified device</li> <li>• System should be European CE Certified</li> <li>• System must have an USB-port for service maintenance</li> </ul> <p><b>Rotors:</b></p> <ul style="list-style-type: none"> <li>• Fixed angle rotor for 30 x 1.5/2.0 mL tubes with maximum speed of 14,000 rpm and 20,800 x g</li> <li>• Metallic rotor lid with aerosol tight for safe centrifugation of samples</li> <li>• Rotor lid must support quick locking during loading/unloading of samples</li> <li>• Rotor and rotor lids can be autoclaved</li> <li>• Rotor bore must be 45° angle to minimize the pellets smear along the tube walls</li> <li>• Fixed angle rotor for 6 x 15/50 mL conical tubes with maximum speed of 7,830 rpm and 7,745 x g</li> <li>• Metallic rotor lid should be available</li> <li>• Rotor and rotor lids can be autoclaved</li> <li>• Swing bucket rotor for 2 x MTP, PCR and Deepwell Plates with maximum speed of 4,680 rpm and 2,204 × g</li> </ul> <p>Metallic rotor Lid with mindshield design for quiet operation</p>	
<b>PHETC-14</b>	<b>Thermomixer Or Dry bath Incubator</b>	<ul style="list-style-type: none"> <li>• Active cooling facility with improved mixing and incubation.</li> <li>• Capacity of instrument: 0.5 ml to 50 ml.</li> <li>• Temperature control range from approx. 15 °C</li> </ul>	One No.

		<p>below room temperature to 100°C lowest setting volume + 1°C (Refrigerated room) +/- 1 °C to 100 °C.</p> <ul style="list-style-type: none"> <li>• Temperature setting range from 1°C to 100°C</li> <li>• Shaking Speed: 300-3000RPM.</li> <li>• Incubating accuracy from +/- 0.5 °C between 20 °C and 45 °C, +/- 2.0 °C, below 20 °C and above 45 °C.</li> <li>• Heating up speed: Approx. 7 °C / min.</li> <li>• Cooling speed approx. 2-3 °C / min between 99 °C and RT °C, 0.5-1 °C /Min between RT and 13 °C, Below RT.</li> <li>• Power Supply: 100 –240 V, 50 – 60 Hz.</li> <li>• Power requirement: 90 W.</li> <li>• EDP Connection: RS 232 interface.</li> <li>• Instrument should have possibility to change 9 different blocks as per user requirement.</li> <li>• 1.5ml/0.2 ml block should be supplied along with instrument. Thermotop should be provided along with instrument to avoid evaporation.</li> </ul>	
<b>PHETC-15</b>	<b>Electrophoresis Unit</b>	<p><b>Vertical Electrophoresis Unit:</b></p> <p>4-gel vertical electrophoresis system, 1.0 mm gel thickness, includes companion module, 2 casting stands, 4 casting frames, 10-well combs, 5 short plates, and 5 spacer plates, with TGX Stain-Free™ FastCast™ Acrylamide Starter Kit, 10% (161-0182)</p> <ul style="list-style-type: none"> <li>• Number of gels: 1–4</li> <li>• Cell (tank and lid with power cables) : 1</li> <li>• Companion module (to run up to 4 gels): 1</li> <li>• 10-well combs: 5</li> <li>• 1.0 mm spacer plates (5 plates per box): 1 box</li> <li>• Short plates (5 plates per box) : 1 box</li> <li>• Casting stands: 2</li> <li>• Casting frames: 4</li> <li>• Total buffer volume for 2 gels : 800ml</li> <li>• Total buffer volume for 4 gels : 1000ml</li> <li>• Typical run time for SDS-PAGE : 35–45 min (at 200 V constant)</li> <li>• Gel format : Mini</li> <li>• Buffer dam : 1</li> </ul> <p><b>Horizontal Electrophoresis Unit:</b></p> <p>Wide horizontal electrophoresis system, should include 15- and 20-well combs, gel caster, 15 x 10 cm (W x L) UV-transparent tray</p> <ul style="list-style-type: none"> <li>• Easily removed electrodes for simple cleaning</li> <li>• UV-transparent clear gel tray with fluorescent ruler</li> <li>• Longer tabs on base for easy lid removal and reduced buffer spillage; lid cannot be incorrectly positioned</li> <li>• Should Include Power Pac Basic Power Supply and gel caster for tape-free casting</li> <li>• Ready Agarose Precast Gels lock securely into the chamber — save time and get reproducible</li> </ul>	One No.

		<p>separations</p> <p>Product Contents</p> <ul style="list-style-type: none"> <li>• Buffer tank</li> <li>• Lid with cables</li> <li>• 15 x 10 cm tray</li> <li>• Levelling bubble</li> <li>• 15- and 20-well combs</li> <li>• Gel caster</li> </ul> <p><b><u>Power Supply:</u></b></p> <ul style="list-style-type: none"> <li>• Output specifications 10–300 V, fully adjustable in 1 V steps</li> <li>• 4–400 mA, fully adjustable in 1 mA steps</li> <li>• 75 W (maximum)</li> <li>• Type of output Constant voltage or constant current with automatic crossover</li> <li>• Output terminals 4 pair recessed banana jacks in parallel</li> <li>• Timer control 1 min–99 hr 59 min, fully adjustable</li> <li>• Pause/Resume function: Yes</li> <li>• Display : 3-digit LED</li> <li>• Operating conditions: 0–40°C; 0–95% humidity in absence of condensation Safety compliance EN61010</li> </ul> <p>Safety features No-load detection; rapid resistance change detection, ground leak detection, overload/short circuit detection, overvoltage protection, over-temperature protection</p> <ul style="list-style-type: none"> <li>• Input protection Fuse on hot and neutral</li> </ul>	
<b>PHETC-16</b>	<b>Orbital Shaker</b>	<ul style="list-style-type: none"> <li>• Universal Shaking Platform should be capable of holding at least 50ml to maximum 2000ml clamps</li> <li>• Shaking frequency should be at least 25-400 RPM at a minimum 26 mm orbit and with a maximum deviation of +/-1 RPM from set value.</li> <li>• Clamps should be made of single piece stainless steel material (without welding) and leaves tied with three springs.</li> <li>• Temperature range should be 5°C to 80°C with an accuracy of +/- 0.1° C at 37°C</li> <li>• Should be microprocessor based PID control system with digital LED and control via digital keypad</li> <li>• Movement of the shaker should be Magnetic (or) Triple Eccentric Counter balanced drive, driven by Brushless Motor for low maintenance.</li> <li>• Equipment should have Non-Volatile memory with automatic power failure restart and door opening sensor switch.</li> <li>• Only Standard Models should be quoted and custom-made products strictly will not be considered.</li> <li>• Manufacturer should be renowned ISO 9001-2015 certified Company with a record of minimum 50 Number of installations in reputed Govt. of India organizations</li> <li>• Valid CE Certificate should be enclosed.</li> </ul>	One No.

		<ul style="list-style-type: none"> <li>• If necessary, the equipment has to be demonstrated in our laboratory/in manufacturer's facility (for Indigenous manufacturers only) or at any nearby installed place.</li> <li>• Below Accessories should be supplied along with the equipment</li> <li>• S.S Clamps to hold 100 ml Erlenmeyer flask - 4nos</li> <li>• S.S Clamps to hold 1000 ml Erlenmeyer flask – 2nos</li> <li>• S.S Clamps to hold 2000 ml Erlenmeyer flask – 4 nos</li> <li>• Automatic Stabilizer 1</li> <li>• Stationary Tray – 1</li> </ul>	
<b>PHETC-17</b>	<b>BOD Incubator</b>	<ul style="list-style-type: none"> <li>• Construction should be double walled construction with backside triple.</li> <li>• Capacity: 250L-275L</li> <li>• Insulation: 3" Thick PUF Insulation ensures stable temperature &amp; reduced energy consumption</li> <li>• Air Circulation: Motorized Blower at back side of the chamber develops unique air flow system which maximum uniform temperature condition inside the chamber.</li> <li>• Should have unique air flow for quick recovery after door openings.</li> <li>• Blower motor: 1/12 HP, TEFC, F-class insulation, Single phase, 1440 RPM, 230 Volts</li> <li>• Heating System should be high quality for better heating.</li> <li>• Observation Door: Full view observation acrylic door with gasket to observe sample inside the chamber.</li> <li>• Refrigeration system should have better cooling system with ECO friendly refrigerant with time delay to safe guard compressor system.</li> <li>• Lighting: Interior illumination for working area.</li> <li>• Should have Temperature deviation alarm &amp; give audio visual alarm.</li> <li>• Should have safety Thermostat Cutoff the supply in case temperature goes above 60 deg C &amp; activate safety alarm.</li> <li>• Compressor ON delay timer (2 min.) to safe guard the compressor.</li> <li>• Fiber/PU Wheel with front lockable for easy movement.</li> <li>• Adjustable tray height arrangements.</li> <li>• Trays should be stainless steel</li> <li>• Supply 230V AC, Single Phase, 50Hz</li> <li>• Certification: Should have CE Certification</li> <li>• Temperature Range should be in the range of 50° C to 60° C with accuracy <math>\pm 0.5^{\circ}</math> C</li> <li>• Control System should have digital PID controls (user friendly controlling system required) and should have dual display of set value &amp; process value.</li> </ul>	One No.
<b>PHETC-18</b>	<b>Laboratory Refrigerator</b>	<ul style="list-style-type: none"> <li>• Cooling Type should be Frost Free</li> <li>• Instrument should be vertical only.</li> <li>• Capacity (Litres): 1100 L</li> </ul>	One No.



		<ul style="list-style-type: none"><li>• Refrigerator should contains shelves or racks to store samples comfortably.</li><li>• Temperature Range should in the range of 1°C ~ 10°C and adjustable as &amp; when required.</li><li>• Should provide with locking facility.</li><li>• Defrost should be automatic</li><li>• Should have LED lights in the refrigerator</li><li>• Wheels / Castors are required for easy movement.</li><li>• Stabilizer should be Provided</li></ul>	
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Sd/-L.Prasanthi  
Associate Director of Research  
Regional Agricultural Research Station  
Tirupati

## ANNEXURE-II

### Declaration

1. I/We have not been black listed in any department due to any reasons during last 3 years
2. I/We have not been demoted to lower category in any department for not filing the tenders after buying the tender schedules in a whole year and their registration had not been cancelled for a similar default in two consecutive years.
3. I/We will agree to get disqualified my(our)selves for any wrong declaration in respect of the above and get my/our tender summarily rejected.
4. The soft copies uploaded by them are genuine and not forged. Any incorrectness / deviation noticed can be viewed seriously and apart from cancelling the work duly forfeiting the bid security, criminal action can be initiated including suspension of business and/ or black listing.
5. I/We submitting a demand draft no. \_\_\_\_\_ dated \_\_\_\_\_ issued by \_\_\_\_\_ for Rs. \_\_\_\_\_ towards the EMD.

Signature of Tenderer

Date

Address

### **ANNEXURE-III**

#### **Check List**

Sl.No	Code No.	Name of the Document
1.	E-I	Declaration Form (Annexure-II)
2.	E- II	Manufacturing License / Authorization letter from the Manufacturing firm
3.	E- III	Earnest Money Deposit
4.	E- IV	VAT/Sales Tax/GST Clearance Certificate or payment particulars for preceding two years along with supporting Documents. (2019-20 & 2020-21)
5.	E- V	Annual Turnover Assessment order for the preceding two years 2019-20 & 2020-21 certified by Commercial Tax Officer / Chartered Account
6.	E- VI	Copies of balance Sheet, Profit and loss Account for last two years i.e. 2019-20& 2020-21 duly certified by the Auditor
7.	E – VII	Copy of GST Registration Certificate
8.	E-VIII	Users list for the item/ equipment during past 4 years
9.	E- IX	BIS / ISO/ CE issued by the Competent Authority
10.	E-X	APSSIDC/NSIDC/MSME Certificate, if applicable
11.	E- XI	Government Ownership Certificate, If applicable
12.	E- XII	List of service centers with contact details for each of the equipment

**ANNEXURE – IV**

**FINANCIAL BID**

I/We quote the rates FOR, REGIONAL AGRICULTURAL RESEARCH STATION, TIRUPATI **Inclusive of all taxes, duties, transportation, insurance, installation etc.,** as below.

Sl. No.	Name of the item	No. of Units	Price per Unit (Rs.)	Total amount (Rs.)

The articles will be ready for delivery within \_\_\_\_ days from the date of receipt of firm orders.

Yours faithfully,

(Signature and stamp of the Tenderer state legal status whether prop. Partner, Registered firm, Company etc)

**Encl:** Information brochure enclosed

EMD – DD No. Dt. For Rs. \_\_\_\_\_

**Note:** 1. Attach additional sheets giving full particulars such as name and address of the proprietor or list of partners and their addresses or particulars of registered firm or of the company and the specifications of the items furnished.

1. Rates quoted should be marked clearly with main price and taken separately. Total price after taking all the actuals will be taken as financial quote for comparison.