

**INDIAN COUNCIL OF AGRICULTURAL RESEARCH
CENTRAL ARID ZONE RESEARCH INSTITUTE, JODHPUR**

No.F.4(15)2011-12/Admn.IV/

Dated the 07.01.2012

TENDER NOTICE

On behalf of ICAR (Director, Central Arid Zone Research Institute, Jodhpur) sealed tenders are invited from the firms of repute for the purchase of various scientific/laboratory equipments for this Institute. **The detailed list of scientific equipments etc. is available in the Institute web site <http://www.cazri.res.in>.**

Bonafide and reputed manufacturers/Indian agents (on behalf of their foreign principals) may obtain tender form along with specifications etc. from the office of the Assistant Administrative Officer (Stores), CAZRI, Jodhpur on payment of fee Rs. 500/- (non-refundable) towards the cost of tender form for each item either by cash or through Bank Draft as mentioned above during the working days up to 23.01.2012 and up to 11. a.m. on 24.01.2012 as mentioned below. Manufacturers/Indian agents who desire to obtain the tender form by post may send the fee through Bank Draft in favour of ICAR Unit – CAZRI, Jodhpur well in advance. The tender documents including specifications and forms are also available in the Institute web site <http://www.cazri.res.in>. The bidders may download the tender form from the website and submit the same along with requisite fee for tender document through Bank Draft. Interested bidders may quote their rate as per the terms of the tender document along with Earnest Money Deposit (Bid Security) @ 3% of the rate quoted by the firm for each item in the form of Bank Draft drawn in favour of “ICAR Unit-CAZRI, Jodhpur”. The tender form should be submitted as per following schedule.

- | | | |
|---|----------|---|
| 1. Last date of sale of tender form | : | 24.01.2012 up to 11.00 a.m. |
| 2. Last date of acceptance of tender | : | 24.01. 2012 up to 2.30 p.m. |
| 3. Date of opening of tender(Technical bids) | : | 24.01.2012 up to 3.00 p.m. |
| (financial bid) | : | After finalization of the
Technical bids |

Indian Agents of the foreign principals may submit their offer/tender along with original proforma invoice from their foreign principals. The vendors may send tender duly completed in all respect as per instruction contained in the tender documents. Incomplete tenders or tenders received beyond date/time notified above shall be out-rightly rejected. The Institute will not be held responsible for any postal delay.

**Assistant Administrative Office (Stores)
for Director**

**INDIAN COUNCIL OF AGRICULTURAL RESEARCH
CENTRAL ARID ZONE RESEARCH INSTITUTE, JODHPUR**

No.F.4(15)2011-12/Admn.IV/

Dated : 07-01-2012

TENDER NOTICE

On behalf of ICAR (Director, Central Arid Zone Research Institute, Jodhpur), sealed tenders are invited from the firms of repute for the purchase of the following equipments for this Institute.

S.No.	Name of item	Quantity
1	Indented Gravity Separator	1
2	Leaf Area meter	1
3	Grass Seed Harvester with accessories (Imported)	1
4	Specific Gravity Separator & Destoner	2
5	CHNS elemental Analyzer with accessories	1
6	IRGA (Photo-synthesis System)	1
7	Stereo Zoom microscope with digital camera	1
8	Microscope	1
9	Seed drier	1
10	Seed treatment unit	1
11	Bagger and weighing arrangement	1
12	Soil Respiration System	1
13	Penetrometer (Electronic self recording)	1
14	Soil moisture meter	2
15	DNA Floorometer	1
16	Sap Flow meter	1
17	Bio-Pesticides machine	1
18	Assman's Psychrometer	2
19	Solar radiation measuring system	1
20	Atomic Absorption Spectrophotometer	1
21	Automatic Weather Station	1
22	Single ear head thresher	1
23	Temp/RH/CO2 Meters	1
24	Digital Conductivity meter	1
25	Power tiller	1
26	Mist Chamber	1
27	Extruder	1

Bonafide and reputed manufacturers/Indian agents (on behalf of their foreign principles) may obtain tender from along with specifications etc. from the office of the Assistant Administrative Officer (Stores), CAZRI, Jodhpur on payment of fee Rs. 500/- (non-refundable) towards the cost of tender form for each item either by cash or through Bank Draft as mentioned above during the working days up to 23-01-2012 and upto 11.00 a.m. on 24.01.2012 as mentioned below. Manufacturers/Indian agents who desire to obtain the tender form by post may send the fee through Bank Draft in favour of ICAR Unit – CAZRI, Jodhpur well in advance. The tender documents including specifications and forms are also available in the Institute web site <http://www.cazri.res.in>. The bidders may download the tender form from the website and submit the same along with requisite fee for tender document through Bank Draft. Interested bidders may quote their rate as per the terms of the tender document along with Earnest Money Deposit (Bid

Security) @ 3% of the rate quoted by the firm for each item in the form of Bank Draft drawn in favour of "ICAR Unit-CAZRI, Jodhpur". The tender form should be submitted as per following schedule.

1. Last date of sale of tender form : 24.01.2012 up to 11.00 a.m.
2. Last date of acceptance of tender : 24.01. 2012 up to 2.30 p.m.
3. Date of opening of tender(Technical bids) : 24.01.2012 up to 3.00 p.m.
(financial bid) : After finalization of the Technical bids

Indian Agents of the foreign principles may submit their offer/tender along with original proforma invoice from their foreign principles. The vendors may send tender duly completed in all respect as per instruction contained in the tender documents. Incomplete tenders or tenders received beyond date/time notified above shall be out-rightly rejected. The Institute will not be held responsible for any postal delay.

Asstt. Administrative Officer (Stores)
for Director

SECTION II – INSTRUCTION TO BIDDERS [I T B]

TABLE OF CLAUSES

- A. Introduction**
 - 1. Source of funds
 - 2. Eligible goods and services
 - 3. Cost of bidding

- B. Bidding Documents**
 - 4. Content of bidding documents
 - 5. Clarification of bidding documents
 - 6. Amendment of bidding documents

- C. Preparation of Bids**
 - 7. Language of bid
 - 8. Documents constituting the bid
 - 9. Bid form
 - 10. Bid price
 - 11. Bid currencies
 - 12. Indian Agent
 - 13. Documents establishing bidder's Eligibility and qualification
 - 14. Documentation establishing good's eligibility and conformity to bid documents
 - 15. Bid Security
 - 16. Period of validity of bids
 - 17. Format and signing of bid

- D. Submission of Bids**
 - 18. Sealing and marking of bids
 - 19. Deadlines for submission of bid
 - 20. Late bids
 - 21. Modification and withdrawal of bids

- E. Bid Opening and Evaluation**
 - 22. Opening of bid by purchaser
 - 23. Clarification of bids
 - 24. Preliminary examination of bids-unresponsive, substantially responsive and responsive bids
 - 25. Conversion to single currency
 - 26. Evaluation and comparison of bids
 - 27. Bidder's capability to perform the contract
 - 28. Purchaser's right to accept any Bid and to reject any or all Bids
 - 29. Contracting the purchaser

- F. Award of Contract**
 - 30. Award Criteria
 - 31. Purchaser's right to vary quantities at the time of Award
 - 32. Notification of Award
 - 33. Signing of Contract
 - 34. Performance Security

INSTRUCTION TO BIDDERS {I T B}

A. INTRODUCTION

1. Source of funds

- 1.1 The expenditure to be incurred for this intended purchase will be met from the funds available with the purchaser named in the Schedule of Requirements. Hereinafter referred to as “the purchaser”

2. Eligible bidders

- 2.1 This invitation for bids is open to all suppliers, who fulfill the eligibility Criteria as well as the qualification criteria, incorporated in this document.

3. Cost of bidding

- 3.1 The bidder shall bear all cost associated with the preparation and submission of its bid including samples, drawings, literatures etc., if any. The purchaser will in no case be responsible or liable any such cost, regardless of the conduct or outcome of the bidding process.

B. THE BIDDING DOCUMENTS

4. Content of bidding documents

- 4.1 The goods required, bidding procedures and contract terms are prescribed in the bidding document. In addition to the Invitation for Bid, the bidding documents include:
- a) Instruction of Bidders (ITB)
 - b) General Conditions of Contract (GCC)
 - c) Schedule of Requirements
 - d) Technical Specification and Quality Control Requirements
 - e) Questionnaire
 - f) Bid Form and Price Schedules
 - g) Bank Guarantee Form for Bid Security
 - h) Manufacture’s Authorization Form
 - i) Bank Guarantee Form for Performance Security
 - j) Contract Form
- 4.2 In case of any contradiction between the stipulations made in ITB & GCC and Schedule of Requirements, the stipulation incorporated in the Schedule of Requirements will prevail over the corresponding stipulations contained in the ITB and / or GCC.

4.3 The bidder is expected to examine all instructions, forms, terms and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding document in every respect will be at the bidder's risk and may result in rejection of its bid.

5. Clarification of bidding documents

5.1 A prospective bidder requiring any clarification in connection with the bidding documents may notify the purchaser in writing or by telex or cable at the purchaser's mailing address indicated in the Schedule of Requirements. The purchaser will respond in writing to any request for clarification of the bidding documents, which it receives no later than 21 (twenty one) days prior to the deadline for submission of bids prescribed by the purchaser. The purchaser, at its discretion, may send the relevant text of this correspondence (without identifying the source of inquiry) to all the prospective bidders, which have received the bidding documents.

6. Amendment of bidding documents

6.1 At any time prior to the deadline for submission of bids, the purchaser may, for reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by amendment.

6.2 The amendment will be notified in writing or by telex or cable to all prospective bidders, which have received the bidding documents and will be binding on them.

6.3 In order to provide the prospective bidders with reasonable time in which to take the amendment into account in preparing their bids, the purchaser may, at its discretion, extend the deadline for the submission of bids and other allied time frame having linkage with that deadline.

C. PREPARATION OF BIDS

7 Language of bid

7.1 The bid submitted by the bidder and all correspondence and documents relating to the bid exchanged by the bidder and the purchaser; shall be written in English language. Supporting documents and printed literature furnished by the bidder may be written in other languages, provided they are accompanied by an English translation of their relevant passages in which case, for the purpose of interpretation of the bid, the English translation shall govern.

7.2 The bid submitted by the bidder and all correspondence and documents relating to the bid exchanged by the bidder and the purchaser; may also be written in Hindi language, provided that the same is accompanied by an English translation, in which case, for the purpose of interpretation of the bid, the English translation shall govern.

8. Document constituting the bid

8.1 The bid submitted by the bidder shall comprise of the following documents:

- a) A bid form and a price schedule in accordance with ITB clause 9, 10 and 11.
- b) Documentary evidence established in accordance with ITB clause 13 that the bidder is eligible to bid and is qualified to perform the contract if its bid is accepted.
- c) Documentary evidence established in accordance with ITB clause 14 that the goods and ancillary services to be supplied by the bidder conform to the bidding documents.
- d) Bid security furnished in accordance with ITB clause 15.
- e) The questionnaires (Attached as Annexure.....with the bidding documents) duly filled in.

Note: A bid, which does not fulfill any of the above requirements and / or gives evasive information /reply against any such requirement, shall liable to be declared unresponsive and summarily rejected.

9. Bid form

9.1 The bidder shall complete the bid form and the appropriate price schedule furnished in the bidding documents in section IX/1, indicating, inter alia, for the goods to be supplied, a brief description of the goods, their country of origin, quantity and prices.

10. Bid Prices

10.1 The bidder shall indicate on the Price Schedule the unit price and total price of the goods it proposed to supply under the Contract. To this end, the Bidders, are allowed the option to submit the bids for any one or more schedule specified in the 'Schedule of Requirement' and to offer discounts for combined schedules, However, Bidders shall quote for the complete requirement of goods and services specified under each schedule on a single responsibility basis, failing which such bids (for the schedule in question) will not be taken into account for evaluation and will not be considered for award.

10.2 Prices indicated on the price schedule shall be entered separately in the following manner:

1. For goods offered form within India:-

- a) The price of the goods, quoted ex-factory, ex-showroom, ex-warehouse or off-the-shelf, as applicable, including customs; excise and any other duties and sales and other taxes already paid or payable on the components and raw material used in the manufacture or assembly of the goods quoted ex-factory or on the previously imported goods of foreign origin quoted ex-showroom, ex-warehouse or off-the shelf.

- b) Any sales or other taxes/duties including excise duty, which will be payable on the goods in India if the contract is awarded.
- c) Chares for inland transportation, insurance and other local costs incidental to delivery of goods to their final destination. The final destination is specified in the Schedule of Requirements.

and

- d) the price of incidental services as and if listed in Schedule of Requirement.
- e) Any element of cost, Taxes, duties, levies etc, not specifically indicated in the bid, shall not be paid by the purchaser.

II. For goods offered from abroad-

- a) The price of goods shall be quoted CIF port of entry in India or CIP named place of destination in India as and if specified in the Schedule of Requirements in quoting the prices; the bidder shall use ocean transportation through Indian flag vessels of Indian origin or through vessels of Shipping Conference Lines in which India is a member country. Similarly, the bidder may obtain insurance services form any nationalized insurance company in India.
- b) The price of goods shall be quoted FOB port of shipment, as and if specified in the Schedule of Requirements.
- c) Changes for inland transportation, Insurance and other local costs incidental to delivery of the goods from the port of entry in India to their final destination, which is specified in the Schedule of Requirements.
- d) The price of incidental services as and if listed in the Schedule of Requirements.
- e) Any element of cost, taxes, duties, levies etc., not specifically indicated in the bid, shall not be paid by the purchaser.

10.3 The terms FOB, CIF, CIP etc., shall be governed by the rules & regulations prescribed in the current edition of INCOTERMS, published by the international Chamber of Commerce, Paris.

10.4 The bidder's separation of the price components in accordance with ITB clause 10.2 above will be solely for the purpose of facilitating the comparison of bids by the purchaser and will not in any way limit the purchaser's right to contract on any of the terms offered.

10.5 Prices quoted by the bidder shall remain firm and fixed during the currency of contract and not subject to variation on any account, unless otherwise specified in the Schedule of Requirements if the requirement is for fixed price bid, a bid submitted with an adjustable price quotation will be treated as non-responsive and rejected, pursuant to ITB clause 23.

11. Bid currencies

11.1 For domestic goods prices shall as quoted in Indian rupees only. Commission of Indian Agent, if payable, shall be quoted in India Rupees only in a manner as specified in ITB Clause No. 12.2 For imported goods prices shall be quoted other in Indian rupees or in the currency of the country of origin of goods. Bids, where prices are quoted in any other in any other way shall be treated as non-responsive and rejected.

12. Indian Agent

- 12.1 If a foreign bidder has engaged an agent in India in connection with its bid, it will be required to give the following information issue bid:
- I. The name and address of the Indian agent with their permanent income tax number.
 - II. The details of the services the agent will render
 - III. The amount of remuneration for the agent, included in the FOB component of the bid price.
- 12.2 The agency commission shall be indicated in the space provided for in the price schedule and will be paid to the bidder's agent in Indian rupees using the telegraphic transfer buying rate of exchange ruling on the date of award of contract and shall not be subject to any further exchange variation.

13. Documents establishing bidder's eligibility and qualifications

- 13.1 Pursuant to ITB clause 8, the bidder shall furnish, as part of its bid, documents establishing the bidder's eligibility to bid and its qualifications to perform the contract if its bid is accepted.
- 13.2 The documentary evidence of the bidder's qualifications to perform the contract if its bid is accepted, shall establish to the purchaser's satisfaction:
- a) that in the case of a bidder offering to supply goods under the contract which the bidder did not manufacture or otherwise produce, the bidder has been duly authorized (as per authorization form in section VII/3) by the good's manufacture or producer to supply the goods in India.

- b) that the bidder has financial, technical and production capability necessary to perform the contract and also, it meets the criteria indicated in the Schedule of Requirements.
- c) That, in the case of a bidder not doing business in India, the bidder is or will be (if successful) represented by an agent in India equipped and able to carry out the supplier's maintenance, repair and spare parts stocking obligations prescribed by the conditions of contract and/ or technical Specification
- d) That such an agent (w.r.t. sub-para c above) is enlisted with Directorate General of Supplies & Disposals, Jeevan Tara Building, Sansad Marg, New Delhi-110001, under the scheme of Ministry of Finance, Govt. of India for compulsory enlistment of Indian Agents.
- e) One agent cannot represent two suppliers or quote on their behalf in a particular tender.

14. Documents establishing good's eligibility and conformity to bidding document.

- 14.1 Pursuant to clause 8, the bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to the bidding documents of all goods and services, which the bidder proposes to supply under the contract.
- 14.2 The documentary evidence for eligibility of the goods and services shall consist of a statement in the price schedule, about the country of origin of the goods and services offered which shall be confirmed by a certificate of origin issued at the time of shipment.
- 14.3 The documentary evidence of conformity of the goods and services to the bidding document may be in the form of literature, drawings, data etc. and shall consists of:
 - a) a detailed description of the goods' essential technical and performance characteristics,
 - b) a list giving full particulars, including available sources and current prices, of all spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for a period of two years (or more, if specified in the schedule) following commencement of the use of the goods by the purchaser;and
 - c) a clause-by-clause commentary on the purchaser's Technical Specification's demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the 'Technical Specifications:

14.4 For purposes of the commentary to be furnished to ITB clause 14.3c above, the bidder shall note that the standards of workmanship, material and equipment and references to brand names or catalogue numbers if any designated by the purchaser in its 'Technical Specifications' are instanced to be descriptive only and not restrictive. The bidder may substitute alternative standards, brand names and /or catalogue numbers in its bid, provided that demonstrates to the purchaser's satisfaction that the substitutions are substantially equivalent or superior to those mentioned in the 'Technical Specification'

15. Bid Security

15.1 Pursuant to clause 8, the bidder shall furnish as part of its bid, security of an amount specified in the Schedule of Requirements.

15.2 The bid security is required to protect the purchaser against risk or bidder's conduct, which would warrant the security's forfeiture, pursuant to ITB clause

15.3 The bid security shall be denominated in the currency of the bid or in Indian Rupees and shall be in one of the following forms:

- a) Demand draft on a scheduled commercial bank in India, drawn in favour of the designated officer of the purchase organization and payable at a place as indicated by the purchaser in the Schedule of Requirements.
- b) A bank guarantee, issued by a scheduled commercial bank in India or a bank abroad, duly confirmed by a scheduled commercial bank in India in the form provided in the bidding documents under section VII/2 and valid for 45 days beyond the validity of the bid.

15.4 Any bid from a bidder, not secured in accordance with ITB clauses 15.1 and 15.3 will be summarily rejected by the purchaser, as non-responsive, pursuant to ITB clause 24.

15.5 Unsuccessful bidder's bid security will be discharged/returned as promptly as possible after the expiration of the period of bid validity prescribed by the purchaser, pursuant to ITB clause 16, but barring any unforeseen circumstances, not later than 45 days of the award of contract.

15.6 The successful bidder's bid security will be discharged/returned upon the bidder signing and accepting the contract pursuant to ITB clause 33 and furnishing the performance security, pursuant to ITB clause 34.

15.7 The bid security may be forfeited:

- a. if a bidder:
 - I. withdraws its bid or impairs or derogates from the bid in any respect during the period of bid validity specified by the bidder on the bid form: or
 - II. does not accept the correction of errors pursuant to ITB clause 24.2
- b. in the case of successful bidder, if the bidder fails:
 - I. to accept and sign the contract in accordance with ITB clause 33; or
 - II. to furnish performance security in accordance with ITB clause 34.

16. Period of validity of bids

- 16.1 Bids shall valid for acceptance for 90 (ninety) days after the date of bid submission prescribed by the purchaser, pursuant to ITB clause 19. A bid valid for a shorter period shall be rejected by the purchaser as non-responsive.
- 16.2 in exceptional circumstances, the purchaser may solicit the bidder's consent to an extension of the period of bid validity up to a specified period. The request and the response thereto shall be made in writing (or by facsimile or cable or telex, which will be followed by a signed confirmatory copy simultaneously). The bid security provided under ITB clause 15 shall also be suitably extended. A bidder may refuse the request without forfeiting its bid security. However, a bidder agreeing to the request will not be required nor permitted to modify its bid.
- 16.3 if the date up to which the bid is to remain valid happens to be a closed holiday for the purchaser, the bid shall automatically remain valid up to the next working day of that organization.

17. Format and signing of bid

- 17.1 The bidder shall prepare two copies of the bid, clearly making them " Original Bid" and "Duplicate copy of Bid" respectively. In the event of any discrepancy between them, the original shall govern.
- 17.2 The original and the copy of the bid shall be typed or written in indelible ink and shall be signed by the bidder or a person or persons duly authorized to bind the bidder to the contract. All pages of the bid, except for unamended printed literature, shall be initialed by the person or persons signing the bid.
- 17.3 Any interlineations, erasures or overwriting in the bid shall be valid only if they are initialed by the person or persons signing the bid.
- 17.4 The front page of the bidding documents, containing the signature with date of the official (of the purchase organization) selling /dispatching the documents and the seal of that office must be returned in original by the bidder along with the original copy of the bid, failing which the bid is liable to be ignored.

D. SUBMISSION OF BIDS

18. Sealing and marking of bids

- 18.1 The bidder shall seal the original and the duplicate copy of the bid in separate envelopes, duly marking the envelopes as “Original” and “Duplicate” respectively. These envelopes shall then be sealed in an outer envelope. (In case more than two copies are required as per specific stipulation in the Schedule of Requirements. The copies of the bids shall be marked accordingly, like “Original” “Duplicate”, “Triplicate” and so on. Each copy of the bid shall be sealed in a separate envelope and these envelopes shall then be sealed in an outer envelope)
- 18.2 The inner and outer envelopes shall be:
- a) Addressed to the purchaser at the address given in the Schedule of Requirements.
 - b) Bear the invitation for bids (IFB) number and the words “ DO NOT OPEN BEFORE.....*.....(*The time and date of bid opening, as specified in the Bid Date Sheet shall be indicated here).
- 18.3 Each inner envelope shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared “late” or if the invitation of bids (IFB) is cancelled.
- 18.4 If the outer envelope is not sealed and marked as required by ITB clause.
- 18.5 the purchaser will not assume any responsibility for the bid’s misplacement or premature opening.
- 18.6 Bids sent by Telegram, Telex, cable or facsimile are not acceptable and will be rejected.

19. Deadline for submission of bids

- 19.1 Bids must be received by the purchaser at the address specified under ITB clause 18.2 not later than the time and date specified in the Schedule of Requirements and the purchaser will provide a receipt (inter alia containing time and date of receipt) for the same. If that specified date happens to be a closed holiday for the purchaser, the bid will be ‘received up to the appointed time on the next working day. If the Schedule of Requirement provides for receipt of bids through “ tender box”. The bid shall be submitted accordingly as per the instruction given in the Schedule of Requirements.
- 19.2 The purchaser may, at its discretion, extend this deadline for the submission of bids by amending the bidding document in accordance with ITB clause 6, in which case all rights and obligations of the purchaser and bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

20. Late bids

20.1 Any bid received by the purchaser after the deadline for submission of bids prescribed by the purchaser, pursuant to ITB clause 19, will be rejected and /or returned to the bidder.

21. Modification and withdrawal of bids

21.1 The bidder may modify or withdraw its bid after submitting the same, provided that written notice of the modification or withdrawal is received by the purchase prior to the deadline prescribed for submission of bids.

21.2 The bidders modification or withdrawal notice shall be prepared sealed, marked and dispatches in accordance with the provisions of ITB clause 18,A withdrawal notice may also be sent by telex or cable or facsimile, but the same must be followed by a signed confirmation copy. Postmarked not later than the deadline for submission of bids.

21.3 No bid may be modified subsequent to the deadline for submission of bids.

21.4 No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the bidder in are bid form. Withdrawal of a bid during this interval may result in forfeiture of the bidder's security pursuant to ITB clause 15.7

E. BID OPENING AND BID EVALUATION

22. Opening of bids by purchaser

22.1 The purchaser will open the bids in the presence of bidder's representative, who choose to attend, the time, date and the place specified in the Schedule of Requirements.

If the specified date of bid opening is declared a holiday for the purchaser, the bid shall be opened at the appointed time and location on the next working day.

22.2 The representative of a bidder, who intends to attend the bid opening, shall bring with him/her a letter of authority from the bidder on the bidder's letter head, duly authorizing him/her to attend the bid opening. In the absence of such a letter of authority, the representative (S) will not be allowed to enter and attend the bid opening. The bidder's representative, who attend the bid opening, shall sign a register (which will be provided by the purchaser) evidencing their attendance.

22.3 The bidder's name, technical specifications of the goods offered, bid prices, discounts, the presence or absence of the requisite bid security and such other details as the purchaser, at its discretion, may consider appropriate will be announced at the opening.

22.4 The purchaser will prepare appropriate minutes of the bid opening for its official record.

23. Clarification of bids

23.1 During scrutiny and evaluation of bids, the purchaser may, at its discretion, ask a

bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in the price or substance of the bid shall be sought, offered or permitted.

24. Preliminary examination of bids-unresponsive, substantially responsive and responsive bids

- 24.1 The purchaser will examine the bids to determine whether they are complete, whether the required bid validity is available, whether any computational errors have been made, whether required bid security has been furnished, whether the documents have been properly signed, and whether the bids are generally in order. While examining the bids, the purchaser will also keep in view the requirements as per ITB Clause 8.
- 24.2 Arithmetical errors, of any in a bid will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected accordingly. If there is a discrepancy between the works and figures, the amount in words shall prevail. If the supplier does not accept the correction of such errors, its bid will be rejected.
- 24.3 Prior to the detailed evaluation pursuant to ITB clause 26, the purchaser will determine the substantial responsiveness of each bid to the bidding documents. A substantially responsive bid is one that conforms to all the requirements and terms & conditions of the bidding documents, including the specification and technical parameters of the goods as projected in the bidding document, without material deviation. Deviations form or objections or reservations to the bidding documents. Critical provision, such as those concerning bid validity. Technical specification, performance security, warranty obligations, Force measures taxes & duties and applicable law (governing the contract) will be deemed to be material deviations. Bids from an agent without proper authorization from the manufacture as per ITB clause 13.2 (a), shall be treated as non-responsive. The purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- 24.4 The purchaser may waive any minor infirmity. Non-conformity or irregularity in a bid, which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any bidder.
- 24.5 The conclusion drawn by the purchaser as to the substantial responsiveness or otherwise of a bid or consideration of a minor infirmity of non-conformity or irregularity in a bid is final.
- 24.6 If a bid is determined as not substantially responsive, it will be rejected by the purchaser and may not subsequently be made responsive by the bidder by correction of the non-conformity.

25. Conversion to single currency

- 25.1 To facilitate evaluation and comparison of bids, the purchaser will convert all bid

prices expressed in the amounts in various currencies in which the bid price are payable, to Indian rupees at the BC selling market rate of exchange established by State Bank of India for similar transactions as on the date of bid opening.

26. Evaluation and comparison of bids

- 26.1 The purchaser will evaluate and compare the bids, which have been determined to be substantially responsive, pursuant to ITB clause 24 for each schedule separately. The bid for a schedule will not be considered if the complete requirement covered in the schedule is not included in the bid. However, as stated in ITB clause 10, bidders are allowed the option to bid for any one or more schedule and to offer discounts for combined schedules. These discounts will be taken into account in the evaluation of the bids so as to determine the bid or combination of bids offering the lowest evaluated cost for the purchaser in deciding award (S) for each schedule.
- 26.2 The comparison shall be on CIP destinations basis, duly delivered and commissioned (as the case may be) at the destination.
- 26.3 The purchaser's evaluation of a bid will include and take into account, in addition to bid price and price of the incidental services:
- a) In the case of goods manufactured in India or goods of foreign origin already located in India, sales tax & other similar taxes and excise duty & other similar duties, which will be payable on the goods if a contract is awarded to the bidder; and
 - b) In the case of goods of foreign origin offered from abroad, customs duties and other similar import duties/taxes, which will be payable on the goods if the contract is awarded to the bidder.
- 26.4 The purchaser's evaluation of bid will also take into account the following factors in the manner and to the extent specified in Schedule of Requirements and amplified in ITB clause 26.5:
- a) cost of inland transportation, insurance and other costs within India incidental to delivery of the goods to their final destination as stipulated in the Schedule of Requirements.
 - b) delivery schedule offered in the bid
 - c) the cost of components, spare parts and service,
 - d) the availability of spare parts and after sale service in India for the goods offered in the bid.
 - e) the projected operating and maintenance cost during the life of the equipment.
 - f) Specific additional criteria

26.5 Pursuant to clause 26.4, following evaluation methods will be followed:

a. Inland transportation, insurance and incidentals:

Bidder shall quote separately for inland transportation, insurance and other incidentals for delivery of goods to the required destination as already indicated in the Schedule of Requirements. These costs, incurred in India, shall be quoted in Indian currency. Such costs will be added by the purchaser to the EXW/CIF/CIP bid price

b. Delivery schedule:

The purchaser requires that the goods mentioned in the 'Schedule of requirements' shall be delivered at the destination within the time schedule specified therein. As and if necessary. The estimated time of arrival of goods from ex-works/ port of entry to the destination will be calculated by the purchaser for each bid after allowing for reasonable transportation time based on the published tariff of Railways, appropriate Road Transport Agencies etc. Bids offering deliveries (as worked out on above lines), which are later than the specified delivery but within the allowable range (as specified in the Schedule of Requirements) will be adjusted during the evaluation by adding a factor equal to the percentage specified in the Schedule of Requirements to the EXW/CIF/CIP price per week of variation from the specified delivery schedule.

c. Cost of components and spare parts:

I. the list of items and quantities of major assemblies, components and selected spare parts, likely to be required during the initial period of operation as specified in the Schedule of Requirements, is annexed to the Technical Specification. The total cost of these items, at the unit prices quoted in each bid, will be added to the bid price.

or

II. the purchaser will draw up a list of high usage and high value items of components and spare parts, along with the estimated quantities of usage in the initial period of operation as indicated in the Schedule of Requirements. The total cost of these items and quantities will be computed from the corresponding unit price quoted by the bidder and added to the bid price

or

III. the purchaser will estimate the cost of spare parts usage in the initial period of operation specified in the Schedule of Requirements, based on the information furnished by each bidder, as well as on the past experience of the purchaser or other purchasers in similar situations. Such costs shall be added in the bid price for evaluation.

d. Availability of spare parts and after sales service facilities in India:

The cost to the purchaser of establishing the required service facilities and parts inventories, as cut lined in the Schedule of Requirements or elsewhere in the bidding documents, if quoted separately, shall be added to the bid price.

- e. The projected operating and maintenance cost during the life of the equipment:

These costs, which form a major portion of the life cycle cost of the equipment, will be evaluated in accordance with the criteria specified in the Schedule of Requirements and /or in the Technical Specifications.

- f. Specific additional criteria:

Other specific additional criteria to be considered in the bid evaluation and the corresponding evaluation method shall be incorporated in the Schedule of Requirements and /or in the Technical Specifications.

27. Bidder's capability to perform the contract

- 27.1 The purchaser will determine to its satisfaction whether the bidder, which is selected as having submitted the lowest evaluated responsive bid, is qualified and prima facie capable to perform the contract satisfactorily.
- 27.2 The determination will take into account the bidder's financial, technical, and production capabilities for fulfilling all the requirements of the purchaser as specified in the bidding documents. This exercise will be based upon the examination of the documentary evidence of the bidder's qualifications submitted by the bidder. Pursuant to ITB clauses 2 and 13, as well as such other allied information as the purchaser deems necessary and appropriate.
- 27.3 An affirmative determination will be a prerequisite for award of the contract to the bidder. A negative determination will result in rejection of the bidder's bid, in which event the purchaser will proceed to the next lowest evaluated bid to make a similar determination of the bidder's capabilities to perform satisfactorily.

28. Purchaser's right to vary quantities at the time of award

- 28.1 The purchaser reserves the right at the time of awarding the contract to increase or decrease by up to 25%, the quantity of goods and services specified in the schedule or requirements without any change in the unit price or other terms and conditions.

29. Contacting the purchase

- 29.1 From the time of the bid opening to the time of awarding the contract, if a bidder wishes to contact the purchaser on any matter related to the bid, it should do so in writing.
- 29.2 Any effort by a bidder to influence the purchase, in the purchaser's decision on bid evaluation, bid comparison or contract award shall result in the rejection of the bidder's bid, besides other suitable administrative actions against the bidder, as deemed fit by the purchaser.

F. AWARD OF CONTRACT

30. Award criteria

- 30.1 subject to ITB clause 28, the purchaser will award the contract to the successful bidder whose bid has been determined as the lowest evaluated bid, provided further that the bidder is determiner to be qualified and prima facie capable to perform the contract satisfactorily.

31. Purchaser's right to accept any bid and to reject any or all bids.

31.1 The purchaser reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to the award to contract, without thereby incurring any liability, whatsoever, to the affected bidder or bidders.

32. Notification of award

32.1 Before the expiry of the period of bid validity, the purchaser will notify the successful bidder in writing, by registered letter or by cable/fax/telegram/telex to be confirmed in writing by registered letter, that its bid has been accepted. The schedule(s) of requirement and the corresponding quantity of the item (s) ordered, which have been accepted, will interalia, be mentioned in the notification.

32.2 The notification of award will constitute the formation of the contract.

32.3 Upon the successful bidder's furnishing the performance security, pursuant to ITB clause 34, the purchaser will promptly notify each unsuccessful bidder and will discharge its bid security, pursuant to ITB clause 15.

33. Signing of contract

33.1 At the same time as purchaser notifies the successful bidder that its bid has been accepted, the purchaser will send to the bidder by registered post or speed post, the contract form provided in the bidding documents, incorporating all agreements between the parties.

33.2 Within twenty-one (21) days issue of the contract form by the purchaser, the successful bidder shall sign and date the contract and return it to the purchaser by registered post or speed post.

34. Performance security

34.1 Within twenty-one (21) days issue of notification of award by the purchaser the successful bidder shall furnish the performance security in accordance with and as per the instructions incorporated in the general conditions of contract with regard to performance security.

34.2 Failure of the successful bidder to comply with the requirement of clause 33 or clause 34 shall constitute sufficient grounds for annulment of the award and forfeiture of the bid security, in which event the purchaser may make the award to the next lowest evaluated bidder or call for new bids.

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GENERAL CONDITIONS OF CONTRACT (G C C)

1. DEFINITIONS

- 1.1 In this contract the following terms shall be interpreted as indicated:
- a) "IFB" means invitation for Bids.
 - b) "ITB" means instruction to Bidders.
 - c) "GCC" means General Conditions of Contract.
 - d) "RC" means Rate Contract.
 - e) "Contract" means a legal agreement entered into between the purchaser and the supplier, as recorded in the agreement signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
 - f) "Contract Price" means the price payable to the supplier under a contract for the full and proper performance of its contractual obligations.
 - g) "Goods" means all the items, materials, equipment and /or machinery, which the supplier is required to supply to the purchaser in terms of a contract.
 - h) "Services" means the services ancillary to the supply of the goods, such as transportation and insurance and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other such obligations of the supplier covered under a contract.
 - i) "Purchaser" means the buyer named in a bidding document and in the corresponding contract, purchasing the goods ordered and includes its successors and /or assignees.
 - j) "Consignee" means the individual or body to whom the contracted goods are required to be delivered as per the terms and the conditions incorporated in a contract.
 - k) "Supplier" means the individual or firm supplying the goods under a contract and includes its successor and /assignees.
 - l) "Day" means calendar day of the Gregorian calendar.
 - m) "Month" means calendar month of the Gregorian calendar.

2. APPLICATION

- 2.1 These general conditions of contract (as contained in this section) shall apply to the extent they are not superseded by provisions in other parts of the contracts.

3. COUNTRY OF ORIGIN

- 3.1 All goods and services supplied under the contract shall have their origin in India or in the countries, with which the Government of India has trade relations.
- 3.2 For purposes of this clause, "origin" means the place where the goods are mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing and substantial or major assembling of

components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components

- 3.3 The origin of goods and services is distinct from the nationality of the supplier

4. STANDARDS

- 4.1 The goods supplied under this contract shall conform to the standards mentioned in the 'Technical Specifications' and when no applicable standard is mentioned, to the latest authoritative standards, as applicable to the goods' country of origin.

5. USE OF CONTRACT DOCUMENTS AND INFORMATION

- 5.1 The supplier shall not, without the purchaser's prior written consent, disclosed the contract or any provision thereof or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Also, disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for the purposes of such performance.
- 5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information enumerated in GCC sub-clause 5.1 except for the purposes of performing the contract.
- 5.3 Every document other than the contract itself, mentioned in GCC sub-clause 5.1, shall remain the property of the purchaser and shall be returned (in all copies) to the purchaser on completion of the supplier's performance under the contract, if so required by the purchaser.

6. PATENT RIGHTS

- 6.1 The supplier shall at all times indemnify the purchaser, free of cost, against all thirdparty claims of infringement of patent, trade mark or industrial design rights arising from use of the goods or any part thereof in India.

7. PERFORMANCE SECURITY

- 7.1 Within 21 (twenty one) days after the issue of notification of award by the purchaser, the supplier, shall furnish performance security to the purchaser for an amount of 10% (ten per cent) of the contract value, valid upto 60 (sixty) days after the date of completion of all contractual obligations by the supplier, including the warranty obligations.

- 7.2 In the event of any correction of defects or a replacement of defective material during the warranty period, the warranty for the corrected/replaced material shall be extended to a further period of twelve months from the date of the correction/replacement and the Performance Security for the proportionate value (which will be determined by the purchaser in consultation with the supplier) shall be extended by 60 (sixty) days over and above the extended warranty period.
- 7.3 In the event of any contract amendment, the supplier shall, within 21 (twenty one) days of issue of such amendment, furnish the necessary amendment to the Performance Security, rendering the same valid in all respects in terms of the contract, as amended.
- 7.4 The proceeds of the Performance Security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete its obligations under the contract.
- 7.5 The Performance Security shall be denominated in Indian Rupees or in the currency of the contract and shall be in one of the following forms:
- a) Cash in Indian Currency
 - b) Demand Draft on any schedules commercial bank in India, to be drawn in favour of the purchaser as indicated in the Schedule of Requirements.
 - c) Bank Guarantee issues by a schedules commercial bank in India, in the prescribed form as provided in Section VII/4 of this bidding document. 7.6 Subject to GCC sub clause 7.4 above, the performance security will be discharged by the purchaser and returned to the supplier on completion of the supplier's contractual obligations including the warranty obligations under the contract.
- 7.6 Subject to GCC sub-clause 7.4 above, the performance security will be discharge by the purchaser and returned to supplier on completion of the supplier's contractual obligations including the warranty obligations under the contract.

8. INSPECTION AND TESTS

- 8.1 The purchaser and/or its nominated representative(s) shall have the right to inspect and/or to test the goods to conformity to the contract specification and other technical details incorporated in the contract at no extra cost to the purchaser. The Schedule of Requirements and the Technical specification, incorporated in the bidding document, shall specify what inspections and tests, the purchaser requires and where and how they are to be conducted. The purchaser shall notify, in advance, the supplier in writing, of the identity of any representative(s) for this purpose.

- 8.2 The inspections and tests may be conducted on the premises of the supplier or its subcontractor(s), at the point of delivery and /or at the goods' final destination. If conducted on the premises of the supplier or its subcontractor(s), all reasonable facilities and assistance, including access to relevant drawings, design details and production data, shall be furnished by the supplier to the inspectors at no charge to the purchaser.
- 8.3 Should any inspected or tested goods fail to conform to the required specifications and standards, the purchaser may reject them and the supplier shall either replace the rejected goods or make all alterations necessary to meet the specifications and standards, as required, free of cost to the purchaser and resubmit the same to the purchaser for conducting the inspections and tests again.
- 8.4 Where the contract stipulates pre-dispatch inspection by the purchaser's nominated inspecting agency, the supplier shall put up the goods for inspection to the inspecting agency well ahead of time so that the inspecting agency is able to complete the inspection within the stipulated delivery period. If the goods are tendered for inspection at the last moment without providing reasonable time to the inspection agency for completing the inspection, the inspecting agency may carry out the inspection and complete the formality beyond the contractual delivery period at the risk and expense of the supplier. The fact that the items have been inspected after the contractual delivery period will not have the effect of keeping the contract alive and this will be without any prejudice to the legal rights and remedies available to the purchaser under the terms and conditions of the contract.
- 8.5 The purchaser's right to inspect, test and where necessary, reject the goods after the goods' arrival at the final destination shall in no way be limited or waived by reason of the goods having previously been inspected, tested and passed by purchaser or its representatives prior to the dispatch of the goods from the country of origin or from the supplier's premises.
- 8.6 Nothing in GCC clause 8 shall, in any way, release the supplier from any warranty or other obligations under the contract.

9. PACKING

- 9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during their transit to their final destination as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, humid weather and precipitation during transit and open storage. The size and weights of the packing cases shall also take into consideration, where applicable, the available inland mode(s) of transport in India, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit. Further, limitations and /or mandatory instructions, if any, in the weights, volumes and sizes of the packages shall also be taken care of by the supplier.

9.2 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements if any, as shall be expressly provided for in the contract, including additional requirements, if any, specified in the Schedule of requirements and any subsequent instructions given by the purchaser.

9.3 Packing instructions:

The supplier will be required to make separate packages for each consignee named in the contract. Each package will be marked by the supplier at its own expense, on three sides with indelible ink/paint, with the following details: -

- a) contract no. and date
- b) name and address of the consignee
- c) name and address of the supplier
- d) brief description of goods
- e) gross weight and outer dimension of the package
- f) country of origin of goods
- g) packing list reference no. and
- h) any other requirement, relevant to the contract.

10. DELIVERY OF GOODS

10.1 Delivery of the goods shall be made by the supplier in accordance with the terms specified by the purchaser in the notification of award and in the contract.

10.2 For the purposes of the contract, "FOB", "CIF", "CIP" and other trade terms used to describe the obligations of the parties shall have the meanings assigned to them in the current edition of "Incoterms" which are international commercial shipping terms, published by International Chamber of Commerce, Paris, France.

11. TRANSPORTATION

11.1 Where the supplier is required under the contract to delivery the goods F.O.B. transportation of the goods, up to and including the point of putting the goods on board the vessel at the specified port of loading, shall be arranged and paid for by the supplier and the cost thereof shall be included in the contract price.

11.2 Where the supplier is required under the contract to delivery the goods CIF or CIP, transportation of the goods to the port of destination or such other specified place of destination in India, as shall be mentioned in the contract shall be arranged and paid or by the supplier and the cost there of shall be included in the contract price.

11.3 Where the supplier is required under the contract to delivery the goods CIF or CIP within India, the supplier shall arrange the shipment by Indian flag vessels or vessels belonging to Conference Lines in which India is a member. Where the

supplier is required under the contract to deliver the goods F.O.B. and also to arrange on behalf and at the expense of the purchaser for ocean transportation on Indian flag vessels or vessels of Conference Lines in which India is a member country, the supplier may arrange for such transportation on alternative carriers also, if the Indian flag vessels or Conference Line vessels are not available to transport the goods within the time frame specified in the contract. However, before arranging such alternative transportation, the supplier shall obtain prior concurrence of the purchaser for the same.

- 11.4 The supplier shall not arrange part-shipments and /or transshipment without the prior written consent of the purchaser.
- 11.5 In case the supplier violates any of the aforementioned instructions, the supplier shall be liable for all consequences (including financial loss) that the purchaser may face due to such violations.

12. INSURANCE

- 12.1 The goods supplied under the contract, shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery as indicated below in this clause (viz. GCC clause 12).
- 12.2. Where delivery of the goods is required by the purchaser on CIF or CIP basis, the supplier shall arrange and pay for the cargo insurance, naming the purchaser as the beneficiary. Where delivery is on FOB basis, the insurance shall be the responsibility of the purchaser.
- 12.3 In the case of a contract of CIF or CIP basis, the insurance shall be for an amount equal to 110% (one hundred and ten per cent) of the CIF or CIP value of the goods from "warehouse to warehouse" (final destination) on "all risks" basis including war risks and strikes.

13. DISTRIBUTION OF DESPATCH DOCUMENTS

- 13.1 The shipping and other documents as well as dispatch details to be furnished by the supplier to the purchaser and /or to the purchaser's nominated authorities to enable the purchaser and /or its nominated authorities to clear and /or accept the goods will depend on the mode of dispatch of the goods and the terms of delivery, as specified in the Schedule of Requirements and I the contract and subject to the same, the instructions in this regard will be as indicated below:

a) For goods supplied from abroad:

Within 24 hours of shipment, the supplier shall notify the purchaser and its nominated authorities (as specified in the contract) and the insurance company by cable or telex or fax, the full details of the shipment including contract number, description of goods, quantity, the vessel, the bill of lading number and date/airway bill number and date, port of loading, date of shipment, port of discharge, expected date of arrival at the port of entry, etc. Further, the supplier shall also immediately dispatch by registered air-mail the specified number of copies of the following documents to the above authorities:

- i) suppliers invoice showing contract number, description of goods, quantity, unit price and total amount;
- ii) Original and copies of the negotiable, clean, on-board bill of lading marked freight to pay and copies of non-negotiable bill of lading;
- iii) Copies of packing list identifying the contents of each package;
- iv) Insurance certificate;
- v) Manufacturer's /supplier's warranty certificate;
- vi) Pre-despatch inspection certificate issued by the purchaser's nominated inspection agency (if so specified) and the supplier's factory inspection report; and
- vii) Certificate of origin.

The above documents shall be received by the purchaser and other authorities mentioned above at least one week before the arrival of goods at the port or place of arrival and, if not received, the supplier will be responsible for any consequent expenses.

b) For goods supplied from within India:

Within 24 hours of dispatch of the goods, the supplier shall notify the complete dispatch details to the purchaser and /or the purchaser's nominated authorities (as specified in the contract) and the insurance company. The supplier shall also mail the specified number of copies of the following documents to them:

- i) The supplier's invoice showing contract number, description of goods, quantity unit price and the total amount;
- ii) Railway receipt or delivery note';
- iii) Packing list identifying contents of each package;

- iv) Insurance certificate;
- v) Manufacturer's / supplier's warranty certificate;
- vi) Pre-despatch inspection certificate issued by the purchaser's nominated inspection agency (is so specified) and the supplier's factory inspection report; and
- vii) Certificate of origin.

The purchaser shall receive the documents at least one week before the arrival of the goods (except where it is handed over to the consignee with all the documents) and if not received, the supplier will be responsible for any consequent expenses.

The documents to be provided by the supplier for claiming payment are specified in GCC clause 17 ("Payment").

14. INCIDENTAL SERVICES

- 14.1 The purchaser may include in the contract any or all of the following services and /or some additional services, if specified in the Schedule of Requirements and the supplier is required to provide the same:
- a) performance or supervision of on-site assembly and /or start-up of the supplied goods;
 - b) furnishing of tools required for assembly and /or maintenance of the supplied goods,
 - c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods,
 - d) performance or supervision or maintenance and /or repair of the supplied goods, for a period of time agreed to by the parties, provided that this service shall not relieve the supplier of any warranty obligations under the contract , and
 - e) training the purchaser's personnel, at the supplier's plant and /or on-site, in assembly, start-up, operation, maintenance and /or repair of the supplied goods. Prices charged by the supplier for the above mentioned incidental services, if not included in the quoted price for the goods, shall be quoted separately in the bid itself and shall not exceed the prevailing rates, charged to other parties by the supplier for similar services.
- 14.2 Price charged by the supplier for the above-mentioned incidental services, if not included in the quoted price for the goods, shall be quoted separately in the bid itself and shall not exceed the prevailing rates, charged to other parties by the supplier for similar services.

15. SPARE PARTS

- 15.1 As specified in the Schedule of Requirements, the supplier may be required to provide any or all the following materials, notifications and information pertaining to spare parts manufactured and /or distributed by the supplier:
- a) such spare parts as the purchaser may elect to purchase from the supplier, provided that this will not relieve the supplier of any warranty obligations under the contract;
and
 - b) in the event of termination of production of the spare parts:
 - i) advance notice to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
 - ii) immediately following such termination, furnishing at no cost to the purchaser, the blueprints, drawings and specifications of the spare parts, if requested.
- 15.2. Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the goods. Other spare parts and components shall be supplied as promptly as possible but in any case within three months of placement of order and opening the letter of credit.

16. WARRANTY

- 16.1 The supplier warrants that the goods supplied under the contract is new, unused, of the most recent of current models and incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that the goods supplied under the contract shall have no defect arising from design, materials (except when the design adopted and /or the material used are as per the purchaser's specifications) or workmanship or from any act or omission of the supplier, that may develop under normal use of the supplier goods under the conditions prevailing in India.
- 16.2 This warranty shall remain valid for 12 (twelve) months after the goods or any portion thereof as the case may be, have been delivered to the final destination and installed and commissioned at the final destination and accepted by the purchaser in terms a of the contract or for 18 (eighteen) months from the date of dispatch from the supplier's works for domestic goods or for 21 (twenty one) months after the date of shipment from the port or place of loading in the source country for imported goods, whichever is earlier, unless specified otherwise in the Schedule of Requirements.

- 16.3 The purchaser shall promptly notify the supplier in writing of any claim arising under this warranty.
- 16.4 Upon receipt of such notice, the supplier shall, with all reasonable speed (or within the period, if specified in the Schedule of Requirements and the contract) repair or replace the defective goods or parts thereof, free of cost, at the ultimate destination. The supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on the purchaser for the replaced parts/goods thereafter.
- 16.5 In the event of any correction of a defect or replacement of any defective material during the warranty period the warranty for the corrected/replaced material shall be extended to a further period of 12 (twelve) months from the date, such corrected/replaced material starts functioning to the satisfaction of the purchaser.
- 16.6 If the supplier, having been notified, fails to remedy the defect(s) within a reasonable period (or within the period, if specified in the Schedule of Requirements and the contract) the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights, Which the purchaser may have against the supplier, under the contract.

17. PAYMENT

- 17.1 The payment shall be made in the currency/currencies specified in the contract. The supplier shall send its claim(with relevant documents, as required) to the appropriate paying authority as specified in the Schedule of Requirements and the contract. Before claiming any payment, the supplier shall ensure that all the contractual obligations for claiming that payment have been duly fulfilled.
- 17.2 The payment shall be made in the following manner and on production of the following documents:
- A) Payment for goods supplied from abroad:
- i) on shipment:
- 90% of the contract price shall be paid through irrevocable letter of credit established in favour of the foreign supplier in a scheduled commercial bank in India or a bank in the supplier's country acceptable to the purchaser, upon submission of the following documents:
- a) Certified copy of the fax sent by the supplier to the purchaser and other as per GCC sub-clause 10.3(a).
- b) Supplier's signed commercial invoice showing contract number, description of the

supplied goods, corresponding quantity, unit price and the total value and name(s) of the consignee(s) for the supplied goods.

- c) Original clean on board bill of lading marked freight pre-paid consigned to the interim/port consignee evidencing description of the goods, quantities, relevant details about the contract number, etc.
- d) Packing list, identifying contents of each package.
- e) Insurance policy or certificate in duplicate endorsed in blank with claims payable in India in the currency of the Letter of credit.
- f) Manufacturer's /supplier's warranty certificate and supplier's factory inspection report.
- g) Pre-despatch inspection certificate issued by the purchaser's nominated inspection agency, if so specified.
- h) Certificate of origin.
- i) Supplier's certificate confirming that the required documents have been sent to all concerned in terms of GCC sub-clause 10.3(a).
- j) Supplier's certificate confirming that the amounts shown in the invoice are correct in terms of the contract and that all the terms and conditions of the contract have been complied with for claiming this payment.
- k) Any other document(s) and /or modification of above documents specified in the Schedules of Requirements and the contract.

- ii) on final acceptance

10% of the contract price of goods received shall be paid within 30 (thirty) days of receipt of goods on submission of the claim supported by the acceptance certificate issued by the purchaser or the purchaser's nominated representative in the proforma given in sectionof the bidding documents.

- iii) payment of agency commission:

Payment shall be made in Indian rupees within 30 (thirty) days of presentation of claim supported by a certificate from the purchaser confirming that the goods have been delivered, full 100% payment has been made to the foreign supplier and all other contractual obligations, have been performed by the supplier and its agent for claiming this payment.

This payment (towards agency commission) will be made by the purchaser's paying authority specified in the contract and not through Letter of Credit.

B) Payment for goods supplied from India:
Payment shall be made in Indian rupees by the purchaser's paying authority, as specified in the contract (and not through Letter of credit), in the following manner:

i) on delivery:

90% of the contract price shall be paid on receipt of the goods by the consignee and upon submission of following documents to the paying authority:

- a) The supplier's invoice showing contract number, description of goods, quantity, unit price and the total amount;
- b) Railway receipt or Delivery note;
- c) Packing list identifying contents of each package;
- d) Insurance certificate;
- e) Manufacturer's/Supplier's warranty certificate;
- f) Pre-dispatch inspection certificate issued by the purchaser's nominated inspection agency, of so specified and the supplier's factory inspection report.
- g) Certificate of origin;
- h) Provisional receipt certificate for the corresponding delivery, issued by the consignee; and
- i) Any other document(s) and /or modification of above documents specified in the Schedule of Requirements and the contract.

ii) On final acceptance:

the remaining 10% of the contact price shall be paid to the supplier within 30 (thirty) days of receipt of its claim, duly supported by the final acceptance certificate for the corresponding delivery issued by the purchaser's representative in the proforma given in sectionof the bidding documents.

C) Payment for incidental services and supervision:

The incidental services and supervision, if required separately, will be specified in the Schedule of Requirements and in the contract. The payment terms applicable for such services and supervision will also be specified therein.

17.3 Operation of the Letter of Credit:

- i) The payments effected through letter of credit, shall be subject to the latest Uniform Customs and Practice for Documentary Credit, of the international Chamber of Commerce;
- ii) If requested specifically by the supplier, the letter of credit will be confirmed, but the cost for the same shall be charged to the supplier's account.
- iii) If the letter of credit is required to be extended/reinstated for reasons not attributable to the purchaser, the charges thereof shall be to the supplier's account.

18. PRICES

18.1 Prices charged by the supplier for the goods supplied and the services performed under the contract shall not vary from the prices quoted by the supplier in its bid with the exception of any price adjustment authorized in the Schedule of Requirements.

19. Modification of contract

19.1 The purchaser may at any time, by written order given to supplier pursuant to GCC clause 31, make changes and modifications within the general scope contract in any one or more of the following:

- a) drawings, designs or specifications, where goods to be supplied under the contract are to be specifically manufactured for the purchaser,
- b) the mode of packing,
- c) the mode of despatch
- d) the place of delivery
- e) the services to be provided by the supplier, and /or
- f) any other area(s) of the contract, depending on the merits of the case.

19.2 If any such change causes an increase or decrease in the cost of, or in the time required for the supplier's performance of any provision under the contract, an suitable adjustment shall be made in the contract price or contract delivery schedule or both, and the contract shall be amended accordingly.

Any claim by the supplier for adjustment under this clause must be asserted within 21 (twenty -one) days from the date of the supplier's receipt of the purchaser's amendment / modification of the contract.

- 19.3 Subject to GCC sub-clauses 19.1 and 19.2, no variation in or modification of the terms of the contract shall be made except by written amendment signed by both a parties.

20 Assignment

- 20.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

21 Sub Contracts

- 21.1 The supplier shall notify the purchaser in writing of all sub-contracts awarded under the contract, if not already specified in its bid. Such notifications, in its original bid or later, shall not relieve the supplier from any liability or obligation, whatsoever, under the contract.

- 21.2 Subcontract shall be only for bought-out items and sub-assemblies.

- 21.3 Subcontracts must comply with the provisions of GCC clause .3.

22 Delays in the supplier's performance

- 22.1 Delivery of the goods and performance of the services shall be made by the supplier in accordance with the time schedule specified by the purchaser in the "Schedule of Requirements".

- 22.2 Except as provided under GCC clause 25, any unexcused delay by the supplier in maintaining its contractual delivery obligations shall render the supplier liable to any or all of the following sanctions.

Imposition of liquidated damages,
Forfeiture of its performance security and / or
Termination of the contract for default.

- 22.3 If at any time during the performance of the contract, the supplier or its subcontractor(s) should encounter conditions hindering timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). After the receipt of the supplier's discretion extend the supplier's time for performance, in which case the extension of the delivery period shall be ratified by issuing an amendment to the contract.

- 22.4 The supplier shall not dispatch the goods after expiry of the delivery period. The supplier is required to apply to the purchaser for extension of delivery period and obtain the same before dispatch. In case the supplier dispatch the goods without obtaining an extension, it would be doing so at its own risk and no claim for payment for such supply and / or any other expense related to such supply shall lie against the purchaser.

23 Liquidated damages

- 23.1 Subject to GCC clause 25, if the supplier fails to delivery any or all of the goods or perform the services within the time period(s) specified in the contract, the purchaser shall without prejudice to its other remedies under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5 % (half percent) of the delivered price of the delayed goods or unperformed services for each week of delay or part thereof until actual delivery of performance, up to a maximum deduction of 10% (ten percent) of the delayed goods or services contract price. Once the maximum is reached, the purchaser may consider termination of the contract, if the same have not been terminated already.

Further, during the above mentioned delayed period of supply and / or performance, the supplier, notwithstanding any stipulation in the contract for increase in price for any ground, shall not be entitled to any increase in price and cost, whatsoever, which take place during the period of delay. But, nevertheless, the purchaser shall be entitled to the benefit any decrease in price and cost on any ground during that period of delay.

24 Termination for default

- 24.1 The purchaser, without prejudice to any other remedy for breach of contract, may, by written notice of default sent to the supplier, terminate the contract in whole or in part, if the supplier fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any extension three of granted by the purchaser pursuant to GCC clause 22.
- 24.2 In the event the purchaser terminate the contract in whole or in part, pursuant to GCC sub - clause 24.1, the purchaser may procure, upon such terms and conditions and in such manner as it deems appropriate, goods and / or services similar to those undelivered and the supplier shall be liable to the purchaser for any excess cost for such similar goods and / or services. However, the supplier shall continue to perform the contract to the extent not terminated

25 Force Majeure

- 25.1 Notwithstanding the provisions of GCC clauses 22,23 and 24, the supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination

for default, if and to the extent that its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure.

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

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

26 Termination for insolvency

26.1 If the supplier becomes bankrupt or otherwise insolvent, the purchaser may terminate the contract by giving written notice to the supplier, without any compensation to the supplier, provided, the such termination will not prejudice or affect any right of action or remedy which has accrued and / or will accrue thereafter to the purchaser.

27. Termination for convenience

27.1 The purchaser by written notice sent to the supplier, may terminate the contract in whole or in part, at any time for its convenience. The notice of termination shall specify that the termination is for the purchaser's convenience, the extent to which performance of the supplier under the contract is terminated, and the date with effect from which such termination becomes effective.

27.2 The goods that are complete and ready for shipment within 30 (thirty) days after the supplier's receipt of notice of termination shall be accepted by the purchaser at the contract terms and prices. For the remaining goods, the purchaser may elect:

- a) to have any portion completed and delivered at the contract terms and prices; and / or
- b) to cancel the remainder and pay to the supplier an agreed amount for partially completed goods and services and for materials and parts already procured by the supplier for fulfilling the contractual obligations.

28 Resolution of disputes

- 28.1 If any dispute or difference of any kind shall arise between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve the same amicably by mutual consultations.
- 28.2 If, after thirty (30) days, the parties have failed to resolve their dispute or different by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.
- 28.3 Any dispute or difference, in respect of which a notice of intention to commence arbitration has been given in accordance with GCC sub-clause 28.2, shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the goods under the contract.
- 28.4 The dispute resolution mechanism to be applied pursuant to GCC sub-clause 28.3, shall be as follows:
- a) In the case of a dispute or difference arising between the purchaser and the supplier relating to any matter arising out of or connected with the contract, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation. ACT, 1996. The arbitral tribunal shall consist of three arbitrators, one each to be appointed by the purchaser and the supplier. The third arbitrator shall be chosen by the two arbitrators so appointed by the parties and shall act as presiding arbitrator. In case of failure of the two arbitrators appointed by the parties to reach upon a consensus within a period of thirty days from the appointment of the arbitrator appointed subsequently, the presiding arbitrator shall be appointed by the Indian Council of Arbitration or President of the Institution of Engineers (India).
 - b) The decision of majority of arbitrators shall be final and binding upon the parties.
 - c) The cost and expenses of the arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparation, presentation etc. of its proceedings as also fees and expenses paid to the arbitrator appointed by such party or on its behalf shall be borne by each party itself.
- 28.5 However, where the value of the contract is Rs. 15 lacs (Rupees one and half million) and below, the disputes or differences arising in it shall be referred to sole arbitrator. The sole arbitrator shall be appointed by mutual agreement between the parties. If the parties fail to agree on the arbitrator within 30 (thirty) days from the receipt of a request by one party from the other party to so agree, the appointment shall be made upon request of a party, by the Indian Council of Arbitration or the President of the Institution of Engineers (India).
- 28.6 The value of arbitration shall be the place from where the contract is issued.

29 Governing Language

29.1 The contract shall be written in English language. All correspondence and other documents pertaining to the contract, which the parties exchange, shall also be written in English.

30. Applicable law

30.1 The contract shall be interpreted in accordance with the laws of India.

31. Notice

31.1 Any notice given by one party to the other pursuant to the contract shall be sent in writing or by cable telex or facsimile and confirmed in writing to the addresses specified in the Schedule of Requirements.

31.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

32 Taxes and duties

32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties license fees and other such levies imposed outside India.

32.2 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc. incurred until delivery of the contracted goods to the purchaser.

32.3 Further instruction if, any, shall be as provided in the Schedule of Requirements.

SECTION-IV

PART-1 OF SCHEDULE OF REQUIREMENTS

Schedule-I

S.No.	Particulars	Quantity	Delivery Schedule
1	Indented Gravity Separator	1	CAZRI, Jodhpur
2	Leaf Area meter	1	-do-
3	Grass Seed Harvester with accessories (Imported)	1	-do-
4	Specific Gravity Separator & Destoner	2	-do-
5	CHNS elemental Analyzer with accessories	1	-do-
6	IRGA (Photo-synthesis System)	1	-do-
7	Stereo Zoom microscope with digital camera	1	-do-
8	Microscope	1	-do-
9	Seed drier	1	-do-
10	Seed treatment unit	1	-do-
11	Bagger and weighing arrangement	1	-do-
12	Soil Respiration System	1	-do-
13	Penetrometer (Electronic self recording)	1	-do-
14	Soil moisture meter	2	-do-
15	DNA Floorometer	1	-do-
16	Sap Flow meter	1	-do-
17	Bio-Pesticides machine	1	-do-
18	Assman's Psychrometer	2	-do-
19	Solar radiation measuring system	1	-do-
20	Atomic Absorption Spectrophotometer	1	Bhuj
21	Automatic Weather Station	1	-do-
22	Single ear head thresher	1	-do-
23	Temp/RH/CO2 Meters	1	-do-
24	Digital Conductivity meter	1	-do-
25	Power tiller	1	-do-
26	Mist Chamber	1	-do-
27	Extruder	1	-do-

* (30 days or as mentioned in the purchase order)

An amount of Bid Security @ 3% of the quoted price in the form of DD drawn in favour of ICAR Unit-CAZRI, Jodhpur, payable at Jodhpur or in the form of Bank Guarantee in the enclosed form (Format-IV) may be submitted with the tender document.

PART-2 OF SCHEDULE OF REQUIREMENTS (SECTION-IV)

1. Name of the Purchaser:– The Director, CENTRAL ARID ZONE RESEARCH INSTITUTE, (ICAR) JODHPUR (RAJASTHAN)

2. Purchaser's mailing address THE DIRECTOR,
CAZRI (ICAR), JODHPUR (RAJASTHAN)

3. Preparation of Bids:-

- I. Price Structure -- FOB port of Shipment/FOR, JODHPUR (RAJASTHAN).
- II. Language of Bid- English
- III. List of reputed customers/clients to whom supply has been made during last five years be supplied.
- IV. The amount of Bid Security- Amount as per IFB.
- V. The bid security must be valid for minimum 180 days.

4. Submission of Bids:-

- (i) Number of copies required is One
- (ii) Address for submission of bids, to be given on the envelope is :-

**THE ASSISTANT ADMINISTRATIVE OFFICER (STORE),
CENTRAL ARID ZONE RESEARCH INSTITUTE (ICAR), NEAR ITI, JODHPUR - 342003
(RAJASTHAN)**

- (iii) Time and date of opening bid documents
- (a) Bid opening : (Technical bids) : 24.01.2012 at 3.00 P.M.
(Financial bids) : After finalization of the Technical bids
- (iv) Deadline for submission of bids is 02:30 P.M. on 24.01.2012.

(In the event of the above specified date being declared a holiday for the purchaser, the bids will be received up to the appointed time on the next working Day.)

(v) The Institute has adopted Two bid system (Technical bids & Financial bids) therefore bid should be kept in a sealed packet/envelope. The outer cover should indicate Tender Number. Name of the equipment, Sl no. and opening date on the top of the right hand corner.

(VI) Tenders for each equipment should be placed in separate envelope.

A competent committee will evaluate the tenders.

Documents/Papers to be submitted with Technical Bid/ Financial Bids in addition to the document mentioned on first page of the tender document are as follow:-

Technical Bid: -

1. Technical Bid consisting of all technical details along with commercial terms & conditions. Only ONE MODEL is to be quoted best suiting the technical specification.
2. Product Literature/leaflets consists of detailed description of goods essential technical and performance characteristics.
3. Bid Security (EMD) in the form of A/c payee DD or Bank Guarantee.
4. Manufactures Authorization Certificate in case the bidder is quoting as an agent on behalf of a manufacturer.
5. The Authorized Agent/Dealer should have facility of the after sales service, repairing of the equipment plant, machinery at the site/shop.
6. Dully completed Questionnaires.
7. Certified copy of PAN/ITCC issued by Deptt. of Income Tax.
8. Documents showing capability to carry out supplier's maintenance, repair & spare parts stocking obligations.
9. Certified copy of Sales Tax/CST clearance certificate.
10. Users list, and photocopies of the P.O. received for the said item during last five years.
11. A clause-by-clause commentary on the purchaser Technical specification.
12. Certificate regarding enlistment of Indian Agents with the Central Purchase Organization (e.g. DGS&D) if the Indian agent desires to quote directly on behalf of their foreign principles.

Financial Bid:-

1. Price schedule duly completed enclosed with bidding documents. Financial bid indicating item-wise price for the items mentioned in the Technical Bid.
2. Proforma Invoice from foreign principal in case of imported item.
3. A list giving full particulars including available sources and current prices of all spare parts, special tools etc. valid for a period of two years following commencement of use of equipments.
4. Cost of Annual maintenance charge for next 5 years after expiry of warranty period.
5. Warranty of the equipment should be at least 36 months.
6. Prices should be valid at least for 120 days from the date of opening of bid.

PART-3 OF SCHEDULE OF REQUIREMENTS (SECTION-IV)

1. Inspection and Tests:-

- (i) Certificate showing country of origin _____
- (ii) Test certificate/inspection certificate with date, name of Issuing Agency content of specifications **(To be filled by bidder)**

2. **Packing:-** The consignment may please be shipped in cardboard packing only. If the consignment is dispatched in wooden packing, the shipped is required to send the Phytosanitary certificate from the country of origin for this purpose.

3. **Insurance:-** Insurance shall be arranged by the purchaser, if the purchase order are placed on FOB value otherwise shall be arranged by the beneficiary.

4. **Distribution of dispatch Documents:-** All shipping documents and consignment shall be sent through our nominated consolidators.

5. **Incidental Services:** - Banking charges outside India shall be borne by supplier.

6. **Warranty:-** Minimum 12 months from the date of installation of the equipment.

7. **Payment:-** Payment for goods supplied from abroad will be effected through letter of credit only and all the charges outside India will be supplier's account/Payment for goods supplied from India will be as per GCC Clause 17.

8. **Installation:-** As per purchase order clause, failing which Liquidated Damage clause shall apply.

9. **Prices:-** Be quoted on FOB Airport (Port of shipment) and CIF destination for imported goods. Prices shall be quoted in Indian Rupees or in the currency of the country of origin and not in both the currencies otherwise it shall be treated as non-responsive and rejected. If the Indian Agent provides any Indian made item free of cost with the Imported items/Instrument to meet the tender specification, the cost of the free item may be disclosed so as to deduct the same from the FOB value. The price of Indian made item which will be supplied free of cost shall be provided in Indian currency.

10. **Resolution of disputes:** By mutual consultation failing which it will be resolved under Arbitration & conciliation Act, 1996.

11. **Notices:** - As mentioned GCC clause 31

12. **Taxes and duties:-** A Foreign Supplier shall be entirely responsible for payment all taxes, Stamp duties, license fees & other levies imported outside India and within India in case of local supplier. The supplier may charge full Sale Tax/VAT etc as no form 'C' or 'D' will be issued by the Institute for availing concessional rate of S.T. etc. However, the Institute will issue Custom Duty Exemption Certificate for the imported stores being a research Institute.

Indian Agent Commission:- I.A.C. should be between 5 and 10% of FOB price or the % of commission fixed by the DGS&D for Indian agents or to be mentioned in the BID document.

**PART V
DETAILED SPECIFICATIONS**

S. No.	Name of the item	Broad specification	Quantity
1.	Indented Gravity Separator	<ol style="list-style-type: none"> 1. Indented Gravity Separator Seed Grader type. 2. Quick interchangeable cylinder. 3. Variable rotational speed cylinder drive. 4. Vibrating conveyor for lifting discharge & two collecting trays for reject and final seed. 5. Standard size with metal component construction. 6. Equipped with electrical motor (1 HP), starter and fitting. 7. Capacity 150-450 kg/hr. 8. Continuous cleaning. 9. Additional Accessories: Additional Cylinder suitable for Bajra, Guar, Moong, Moth bean, Mustard, Jeera, etc., 10. Holding bin, V. B. Elevator, Elevator pit cover, etc. 	01 Unit

S. No.	Name of the item	Broad specification	Quantity
3.	Grass Seed Harvester with Accessories (Import Item)	<ol style="list-style-type: none"> 1. Harvesting and collection of seeds of the chaffy and hairy species, particularly of grasses. 2. Self propelled combine type, tractor mounted. 3. Accessories if any required with the instruments. 4. Consisting of header assembly, harvesting and threshing mechanism, separating and cleaning unit, storage bins, power train and a cab with all the controls. 	01 Unit

S. No.	Name of the item	Broad specification	Quantity
4.1	Specific gravity separator	<ol style="list-style-type: none"> 1. Gravity separator with air volume throttles for separation. 2. The deck pitch, eccentric strokes and length adjustable. 3. Interchangeable rectangular Deck with agitation frequency monitors & balanced eccentrics. 4. Equipped with electrical motor (1.5-3 HP), starter and fitting and air blower. 5. Capacity 500-1000 kg/hr. with 6. Variable inclination of deck sidewise and lengthwise in wide range with belt guard. 7. Air Chamber, Sieve Deck assembly and spouts are self cleaning type. 8. Heavy duty and robust structural frame to absorb the vibrations with bag holding clamps at spouts. 9. Big Feeding Hopper with adjustable height and variable feeding rate through controlled gate. 10. Built in air filters can be easily removed for easy access to the moving parts. 11. Screw type arrangement for each fan for controlling the quantity of air. 12. Extra Deck assemble for coarse or fine seeds, suitable for Bajra, Guar, Moong, Moth bean, Mustard, Jeera, Onion, Til, etc. 	01 unit

4.2. Specific Gravity Separator

01 Unit

Lab.model gravity separator removing impurities on specific density principle, grains same in size but light in weight like pest eaten hollow seeds, immature & diseased seeds difference in weight should be separated. Three or more grades can be taken. Suitable for all type of grains, seeds, spices, pulses and granular product. Complete with all standard features including dynamically balanced fan with adjustable feed control, variable oscillation speed of deck, lengthwise and sidewise inclination angle of deck is variable.

So there should be precise adjustments for feed rate, deck air, deck speed, side slope, end slope, dividers. Complete with electric motor cyclone dust collector. Should have following features:

- Silent and smooth operation.
- Feed hopper with controlled feed gate.
- Practically vibrationless, finely counter-balanced.
- Air flow rate is adjustable in a wide range resulting in accurate final. Final separation of product from heavy impurities.
- Tilt of the deck is adjustable in a wide range.
- Shaking speed of the deck is adjustable in a wide range.
- Dynamically Balanced Fan.
- Total recovery of grains/Seeds without wastage during operation.
- The machine is pre-wired from electric motor to the starter to a single connection for in coming power supply.

Destoner

Lab.model Destoner removing impurities on specific density principle, grains same in size but light in weight. Removing stones and other heavier impurities like pest eaten hollow seeds, immature & diseased seeds difference in weight should be separated. Three or more grades can be taken. Suitable for all type of grains, seeds, spices, pulses and granular product. Complete with all standard features including dynamically balanced fan with adjustable feed control, variable oscillation speed of deck, lengthwise and sidewise inclination angle of deck is variable. Complete with electric motor and cyclone dust collector. The machine is pre-wired from electric motor to the starter to a single connection for in coming power supply. Total recovery of grains/Seeds without wastage during destoning operation The machine is pre-wired from electric motor to the starter to a single connection for in coming power supply. Should have following features:

- Silent and smooth operation.
- Feed hopper with controlled feed gate.
- Practically vibrationless, finely counter-balanced.
- Air flow rate is adjustable in a wide range resulting in accurate final. Final separation of product from heavy impurities.
- Tilt of the deck is adjustable in a wide range.
- Shaking speed of the deck is adjustable in a wide range.
- Dynamically Balanced Fan.
- Total recovery of grains/Seeds without wastage during destoning operation.
- The machine is pre-wired from electric motor to the starter to a single connection for in coming power supply.

S. No.	Name of the Item	Broad Specification	Qty.																
5.	CHNS elemental analyser	<p>CHNS ELEMENTAL ANALYZER: PC controlled unit for simple, reliable and simultaneous and accurate measurements of C, H, N and S in solids (arid soil with <0.1% organic carbon & plant biomass) and liquid (volatile and non-volatile liquid) samples. Fitted with double furnace and advanced combustion conditions. Combustion temperature up to 1800°C for static and dynamic steps. Capable to function at user defined temperature, time and available oxygen conditions. Mechanism to control pressure, temperature and volume of the product gases. Fitted with ash removing device for complete removal of ashes produced. Minimum five years warranty on furnace and an assurance by the manufacturer to support the equipment for a minimum period of ten years after purchase. Instrument must be automated to start function and shut down at user defined time. Fitted with electronic mechanism to save gas flow at pre-defined time. Fitted with sample counter. Whole of the unit including sampler must receive and execute commands through computer. Results must be stored automatically in the computer. Colored laser printer for printing output. Three year on-site warranty.</p> <table border="1" data-bbox="467 1033 1320 1915"> <tr> <td data-bbox="467 1033 756 1108">Power Supply</td> <td data-bbox="756 1033 1320 1108">Base Unit: 230V, 50/60Hz, 1400VA</td> </tr> <tr> <td data-bbox="467 1108 756 1415">Absolute weight of element that should be quantitatively estimated by the instrument Sensitivity Sample size</td> <td data-bbox="756 1108 1320 1415">C 0 to 4.0 mg or higher H 0 to 1.0 mg or higher N 0 to 2.0 mg or higher S 0 to 2.0 mg or higher Less than 0.5µg for each element Minimum 1 mg to maximum 1000 mg</td> </tr> <tr> <td data-bbox="467 1415 756 1491">Accuracy[%] Precision [%]</td> <td data-bbox="756 1415 1320 1491">CHNS < 0.25% CHNS < 0.15%</td> </tr> <tr> <td data-bbox="467 1491 756 1623">Ultra-microbalance</td> <td data-bbox="756 1491 1320 1623">Weighing range upto 6 g Resolution 0.001 mg Tearing range upto 6 g. Balance operation through touch screen</td> </tr> <tr> <td data-bbox="467 1623 756 1719">Oxygen cylinder with control valves and regulator</td> <td data-bbox="756 1623 1320 1719">Two numbers for suitable oxygen gas</td> </tr> <tr> <td data-bbox="467 1719 756 1816">Helium cylinder with control valves and regulator</td> <td data-bbox="756 1719 1320 1816">Two numbers for suitable helium gas</td> </tr> <tr> <td data-bbox="467 1816 756 1892">Auto sampler with about 100 places</td> <td data-bbox="756 1816 1320 1892">Both for solids and liquids.</td> </tr> <tr> <td data-bbox="467 1892 756 1915">Exhaust unit of the</td> <td data-bbox="756 1892 1320 1915">Exhaust duct be provided to remove exhaust</td> </tr> </table>	Power Supply	Base Unit: 230V, 50/60Hz, 1400VA	Absolute weight of element that should be quantitatively estimated by the instrument Sensitivity Sample size	C 0 to 4.0 mg or higher H 0 to 1.0 mg or higher N 0 to 2.0 mg or higher S 0 to 2.0 mg or higher Less than 0.5µg for each element Minimum 1 mg to maximum 1000 mg	Accuracy[%] Precision [%]	CHNS < 0.25% CHNS < 0.15%	Ultra-microbalance	Weighing range upto 6 g Resolution 0.001 mg Tearing range upto 6 g. Balance operation through touch screen	Oxygen cylinder with control valves and regulator	Two numbers for suitable oxygen gas	Helium cylinder with control valves and regulator	Two numbers for suitable helium gas	Auto sampler with about 100 places	Both for solids and liquids.	Exhaust unit of the	Exhaust duct be provided to remove exhaust	1 Unit
Power Supply	Base Unit: 230V, 50/60Hz, 1400VA																		
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Auto sampler with about 100 places	Both for solids and liquids.																		
Exhaust unit of the	Exhaust duct be provided to remove exhaust																		

		gases	gases from the room where it is installed.	
		Temperature control unit to be installed in laboratory for maintaining ambient temperature at 26oC or lower (One split A/C of 2.0 ton capacity).		
		<p>Computer</p> <p>Intel® Core™ i7-2600 • 3.4 GHz, DMI 2.5GT/s , 4GB 1333MHz DDR3RAM, 1TB HDD SATA 3G, 64 bit, 18" LCD monitor, Laser color printer to operate the equipment</p>		
		<p>Portable lap top computer for data storage and processing --Intel core i7-820QM Dual core processor, 3072 processor Cache memory, 4GB RAM, 1TB HDD, 64 bit, 34cm LED monitor, Windows7 Ultimate 64 bit, 2 slots supporting 4GDIMMS. Mobile intel QM 67 Chipset, DVD RW, 9 cell extended battery slice, 90 W A/C adapter</p>		
		<p>UPS: Automatic switchover to UPS in event of power failure and to on-line when power supply resumes. UPS must have capacity to run the unit for minimum 15 estimations in event of power failure</p>		
		<p>All consumable and other items required for efficiently running the unit for estimation of 5000 samples</p>		
		<p>Quotations must include details of the main equipment being quoted and also of its components.</p>		

Item S. No.	Name of Item	Broad Specification	Qty.
6.	IRGA		One unit

PORTABLE PHOTOSYNTHETIC SYSTEM

Required for measuring photosynthesis, transpiration, stomatal conductance and internal CO₂ in open and closed environments with high degree of stability. The system should be able to automatically control light, temperature and CO₂/H₂O concentration in leaf chamber.

Measurement	Range	Accuracy	Technique
CO ₂	0 to 2000 ppm	± 2%	Non Dispersive Infra red gas analysis (IRGA)
H ₂ O	0-100 %	± 2% at 10%RH to ± 4% 95%RH	Humidity sensitive capacitor/
PAR	0- 2500 μmol m ⁻² s ⁻¹	± 5μmol m ⁻² s ⁻¹	Filtered Silicon Cell, fully cosine corrected / Filtered GaAsP - Photodiode
Chamber temperature	15- 50 °C	± 0.5 °C	Precision thermistor
Leaf temperature	15- 50 °C	± 0.5 °C	Infra red non contact Sensor
Flow rate to Plant Leaf Chamber	100-1000 cm ³ min ⁻¹		
Data storage : on board FLASH RAM and /or any other inbuilt memory system			
Programming level			
CO ₂	--0-2,000 μmol mol ⁻¹ .		
H ₂ O	0-Dewpoint		
Temperature	± 10 °C above and below ambient by micro-peltier element		
PAR	0- 2500 μmol m ⁻² s ⁻¹		
Display	LCD		
Recorded data	USB and/or PC compatible through RS232 output		
Battery	Rechargeable, environmentally safe, 8-16 h continuous use battery life , battery charger and adaptor(s)		
Operating temperature	5-50 °C		

To be supplied with all accessor

ies including modules, sensors, adaptor cables and connectors for

Simultaneous measurement of leaf gas exchange and chlorophyll fluorescence

Measurement of soil respiration in chamber

Soil temperature probe

Measurement of closed system canopy assimilation

Narrow and broad leaf chamber

KINDLY QUOTE FOR MAIN UNIT /CONSOLE (MENTIONING EVERYTHING INCLUDED IN IT) AND ALL OTHER ACCESSORIES INDIVIDUALLY ALONGWITH COMPLETE SPECIFICATIONS.

7. Specification of Stereo zoom microscope with digital Camera

01 Unit

1. Stereo zoom microscope with fully Apo chromatic corrected Greenough system.
2. System with magnetic mounting system to maintain proper alignment of the internal optics.
3. System with incident and reflected LED light source.
4. Antistatic housing of stereomicroscope along with stand and external illumination source to protect against the damaging influences of electronic discharge (ESD), clear glass stage 170 x 220 mm, 100-240 V and daylight filter.
5. Zoom ratio of 8:1 (Apo chromatic) with zoom range 8X or better. Motorized higher zoom ratio and motorized focusing under optional.
6. Eyepiece 10x FOV 23 with diopter adjustment from +5 to -5 for eyesight correction.
7. Magnification of 10x to 80x or more (with 10x eyepiece and 1x objective)
8. working distance 60- 70mm or more
9. Plan Apo 1X objective
10. Resolution – 600lp/mm or better
11. Numerical aperture- 0.2
12. Trinocular port for beam splitter, and C- mount adapter and viewing angle 38 degree.
13. Drawing intermediate tube (optional).
14. Measurement and analysis software for insects, protozoa, nematodes and microflora.
15. 2/3 inch color cooled CCD Camera with effective 1.4 mega pixel, Pixel size 6.45 μ m \times 6.45 μ m or better. C mount adapter 0.63X.
16. Colour digital scientific camera for on screen microscope image display high resolution, 3 Megapixel or more, vibration free, CMOS sensor, Metal casing, software for image acquisition storage, live measurement, Edit, annotation etc. (Optional)
17. High quality Digital data logger. Branded Computer System should be quoted with digital Camera. (Intel[®] CoreTM i5 380M Processor 2.53GHz/3MB cache; genuine Windows[®] 7 Home Basic 64-Bit operating system; 14/15" colour TFT; RS232 serial port and facility for data logger attachment with PCI card with driver. Symantec Norton Anti-Virus (1 year updates). Supplied with original software, leather carrying case Warranty: 1 Year Complete Cover Accidental Damage Protection.

8. Specification for microscope with scientific digital camera

01 Unit

- Microscope stand with 12V stabilized power supply (90-250V) for bright field/dark ground & phase contrast.
- Motorized Z step 25-30nm with dedicated TFT/LCD screen to control parameters.
- X/Y drive knob attachable to left or right for operator convenience.
- Automated stand with automatic adjustment of light with change of objective set.
- 6- positions automated nosepiece & toggle switch .
- Filter magazine with Grey and Green filters.
- Condenser with 5-6 position with provision of phase contract.
- Height adjustable focus knobs.
- Special collector lense for bright light.
- Eyepiece 10x /23
- Objectives Plan achromatic 4x 5x, Plan flour 10x/Ph, Plan Fluotar 20xPh, Plan achromatic 40x Ph.
- Plan achromatic 100X oil with phase (optional), Plan flour 100X oil with phase (optional), Plan flour 40X with phase (Optional).
- Colour digital scientific camera for on screen microscope image display high resolution, 3 Megapixel or more, vibration free, CMOS sensor, Metal casing, software for image acquisition storage, live measurement , Edit, annotation etc. (Optional).
- Trinocular observation tube with Vis/Photo. 100/0,50/50 & 0/100 light beam splitting facility to get more flexibility in normal observation using 50/50.
- Measurement and analyis software for insects, protozoa, nematodes and microflora.
- 2/3 inch color cooled CCD Camera with effective 1.4 mega pixel, Pixel size 6.45 μm X6.45 μm or better. C mount adapter 0.63X. Should be quoted on optional item.
- Focusable drawing tube (Optional).
- System should be upgradable with Fluorescence, DIC, Polarization teaching head etc. in future.

S. No.	Name of the item	Broad specification	Quantity
9.	Seed Drier	<ol style="list-style-type: none"> 1. Indirect fired type seed drier. 2. Highly sensitive thermostat, dial thermometer, emergency alarm, solenoid valve, photo cell, sequence controller. 3. Heating unit provided with high chimney to discharge the affluent gases. 4. The drying trays should have self unloading system through discharge spouts. 5. Should have temperature controlled systems to adjust the temperature. 6. Capacity of drying 200-250 kg/hr. 7. Should have safe operation and low maintenance. 8. Used to dry seeds materials. 	01 Unit

S. No.	Name of the item	Broad specification	Quantity
10.	Seed Treatment Unit	<ol style="list-style-type: none"> 1. Useful for applying liquid and dry fungicides and insecticides on outer surface of the seeds without any damage to the seed 2. Capacity: 50-100 kg/hr 3. Dosing punp: M. D. -50-100 A 4. Electric Motor: 3 phase, 1400-1500 rpm, 1/5 to 1/8 HP 5. Geared Motor for chemical Tank: 3 phase, 25-50 rpm, ½ to 0.75 HP 	01 Unit

S. No.	Name of the item	Broad specification	Quantity
11.	Bagger and weighing arrangement	<ol style="list-style-type: none"> 1. 2-25 kg weighing range 2. Hopper capacity upto 150 kg 3. Output speed 50-75 bags per hr. as per requirements with Accuracy of $\pm 0.5\%$ 4. Load cell based & digital clear display with 7 digits. 5. Microcontroller based electronic controller. 6. Totally Programmable net weight. 7. Easy to operate & low power consumption 8. External weighing calibration 9. Gravity feeder & bin level controller, net weighing. 10. Fast Accurate and reliable weighing suitable for free flowing seed materials. 	01 Unit

Item S.No.	Name of the Item	Broad Specification	Quantity
12.	Soil Respiration System	1. Battery operated, field portable instrument, can measure CO ₂ exchange, moisture and temperature simultaneously. 2. Chamber automatically opens between measurement cycles 3. Facility of open and close chamber both. 4. Can be used for long term under dry to humid and 0 to 45 ⁰ C ambient temperature,	One unit

Minimum Specifications

Measurement of CO₂ : 0 to 1000 ppm, 2 ppm resolution infrared gas analysis.

Differentials open or closed system.

Measurement of PAR – 0-3000 micromoles/m²/s.

Measurement of soil temperature - At least four sensors can measure 0⁰C to 50⁰ C up to. depth of 30 cm.

Measurement of soil moisture - At least four sensors to measure soil moisture from 0.0 to saturation upto depth of 30 cm

Data storage, retrievals and analysis system: Windows operated, Intel core – 2 duo processor, 2.0 ghz speed, 2 GB RAM, 250 GB ROM, LAN Card, Monitor-19" TFT, DVD writer 16 X, laser printing and scanning at 16 page/minute with 600 dpi and all other necessary accessories.

Item S.No.	Name of the Item	Broad Specification	Quantity
13.	Penetrometer	<ol style="list-style-type: none"> 1. Electronic self recording 2. Measurement 350 N/cm² or more 3. Accuracy 1% or more 4. Depth 50 cm or more at uniform interval of less than 4 cm. 5. Various cones suitable for soft as well as hard soils required. 6. Operating condition hot arid (max. temp. 50° C plus). 7. Complete with all essential accessories for field use. 8. Spares to keep unit functional for at least 5 years be quoted. 9. Power supply Indian standard i.e. voltage 220 ± 20 & current 5 Amp. 	one unit

Item S.No.	Name of the Item	Broad Specification	Quantity
14.	Soil Moisture (TDR Meter with data downloading system (One))	<p>1) Portable battery operated instrument for in situ measurement of soil moisture in the field</p> <p>2) It should measure the soil moisture up to 1 meter depth (10, 20, 30, 40, 50 upto 100cm.) simultaneously with a single probe to measure all depths at the same time, without holding probe at each depth</p> <p>3) Inbuilt data storage capacity : > than 500MB.</p> <p>4) It should be provided with access tube installation kit (Augur, hammer, sharpening foil etc.) and extraction kit for removing the tube.</p> <p>5) Range : 0-50% soil moisture</p> <p>6) Accuracy : $\pm 3\%$ of the measured moisture</p> <p>7) Working environment : 0-60°C for full operation</p> <p>8) Response time < 2 sec.</p> <p>9) No. of access tube required : 200</p> <p>Data downloading system :</p> <p>PC with genuine Window Xp/Vista - Operating System Intel Core 2 Due Processor 2.2 MHz, 3 MB memory 250 GB HDD, 512 MB RAM, 16X DVD (RW), 16X DVD (R) Intel GMA 3000 Graphic, 17" LCD Monitor, Speaker, Ethernet Card Modem (Broadband)</p> <p>UPS : Output power capacity - 1KVA/600 Watts Maintenance - free sealed Lead-Acid battery with suspended electrolyte : Leak proof</p> <p>Input : Nominal input voltage : 230V</p> <p>Typical Back up time at Full Load 15 minutes</p> <p>Printer : HP Laserjet P2015D series upto 21 ppm, 1200 x 1200 dpi, upto 64 MB RAM</p>	Two Units

Item S. No.	Name of Item	Broad Specification	Qty.
15.	DNA Fluorometer / UV – Visible spectrophotometer	<p>DNA Fluorometer</p> <p>Hoefer DyNA Quant 200 Fluorometer</p> <p>A filter fluorescence photometer with a fixed excitation bandpass source (365nm) and emission bandpass filter (460nm) capable of accurate quantification of low DNA Conc. Using Hoechst 33258 dye. LCD screen with soft keypads for operation. Power input 230V; Light source : Mercury lamp with > 5000 nm. Dimension 13x16.5x35 cm (LxWxD)</p>	One unit

Item S.No.	Name of the Item	Specification	Qty.																																				
16	Sap Flow Meter	<p>The Digital Sap Flow System is comprise of 12 Nos. Heat Ratio Method (HRM) Sensors and Field Station with Data Logging Instruments with all accessories including Sensors Installation Kit and Replacement Parts and Extra cables.</p> <p>HRM Sensors:</p> <table border="1" data-bbox="591 428 1219 1255"> <thead> <tr> <th colspan="3">Sensor Output</th> </tr> </thead> <tbody> <tr> <td>Smart Output</td> <td>:</td> <td>Serial Data</td> </tr> <tr> <td>Heat Pulse Velocity</td> <td>:</td> <td>Cm/hr</td> </tr> <tr> <td>Sap Velocity</td> <td>:</td> <td>Cm/hr</td> </tr> <tr> <td>Sap Flow</td> <td>:</td> <td>Ltr/hr</td> </tr> <tr> <th colspan="3">Heat Pulse</th> </tr> <tr> <td>User Adjustable Heat Pulse</td> <td>:</td> <td>25 joules approx</td> </tr> <tr> <td>Minimum Interval</td> <td>:</td> <td>10 min</td> </tr> <tr> <th colspan="3">Sensor Design</th> </tr> <tr> <td>Probe Diameter</td> <td>:</td> <td>1.3 mm</td> </tr> <tr> <td>Probe Length</td> <td>:</td> <td>30 mm</td> </tr> <tr> <td>Thermocouple</td> <td>:</td> <td>2 per probe</td> </tr> </tbody> </table> <p>Field Station with Data logging Instruments: Plug & Play Smart Logger. Standard 200 channels. Memory: 500,000 (4 MB); Date & Time Stamped, High Resolution (16 Bit) readings. Includes: LCD display, 6 V/7 Ahr battery, 110/240 V (12 V, 2.5 Amp CD output) power supply, RS232 cable, embedded software for operation with Hyper-terminal & user manual. Field Station is supplied complete with enclosure, Mast and other accessories with Solar Panel. Data Communication with GSM Telemetry and optional hard wired through RS232 C Cable</p>	Sensor Output			Smart Output	:	Serial Data	Heat Pulse Velocity	:	Cm/hr	Sap Velocity	:	Cm/hr	Sap Flow	:	Ltr/hr	Heat Pulse			User Adjustable Heat Pulse	:	25 joules approx	Minimum Interval	:	10 min	Sensor Design			Probe Diameter	:	1.3 mm	Probe Length	:	30 mm	Thermocouple	:	2 per probe	one unit
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Item S.No.	Name of the Item	Broad Specification	Quantity
17.	Machinery for bio – pesticides – Neem decorticator, seed depulper and rotary avaporator	<p>a. Neem Seed Cleaner: -1 Machine to remove dust, durt, mud stones etc. from neem fruits/ seeds. Frame fabricated from M.S. Angels and Flat oscillating Tray with Double Shaker Screens of MS.Sheets With Fan Box, adjustable Hopper and Motor Stand with 2 H.P. Motor. Transport wheels. Capacity 100-200kg seeds or fruit/ hr</p> <p>b. Neem Seed Drier:-1 Mini seed Drier comprises of Heat Exchanger cum Furnace, Air blower and drying chamber. Main working chamber of drier separated from heating and Air circulation system. Heat from heat Exchanger/ Boiler passed over to drying chamber by Air blower Fitted with 3 H.P. Load motor, Capacity 2-3 quantals/ batch</p> <p>c. Neem Seed Decorticator: Machine to shell Neem fruits or seeds and to obtain neem kernels. Frame made up of M.S.Angels Hopper, Shelling chamber and Oscillating Trays made of M.S.Sheet Rotor attached with rubber Shield, shelling operation between Rubber Shoe and Sieve and neem kernels and Husk, Dust etc. fall on gutter. Blower blows the husk to the other end, kernels and dust – mud etc. falls on the bottom side of the double screen Oscillating Sieves where clean kernels are separated automatically from dust-mud. With 2 H.P. Motor. Capacity range from 25-100kg/hr</p> <p>d. Neem Pulverizer: Machine to pulverize soft, medum and hard materials like neem fruits/seeds . Processing chamber, cyclone for dust collection. Body provided with water cooling jacket to retain the original flavour & quality in the ingredients. Neem powder for coating by mix grinding of neem cake & kernels. Capacity of 25-100kg/hr</p> <p>e. Neem Oil Expeller and neem pellet maker : Heavy Duty Double Bearing System Steel Body Oil Expeller with “OIL BATH” system having Helical Gear Set Arrangement having capacity ranging 30-90kg/hr . Provided with water cooling chamber known as “Cooling Press” to</p>	<p>One unit</p> <p>one</p> <p>one</p> <p>one</p> <p>one</p> <p>one</p>

		<p>retain maximum azadirachtin contents in oil and cake for which attachment of cooking/steam kettle & boiler with injecting steam jet Baby Boiler's working pressure is required only 1 to 1.5 kg/cm, Capacity of cooking kettle ranges between 40-60kg and entire process should be completed in 15 minutes.</p> <p>Temperature of neem kernels should not exceed 60°C</p> <p>Moist kernels thereafter proceed to water cooled chamber for crushing and preparing neem pellets.</p> <p>Water cooling arrangement having upper and lower half, chamber plates and chamber bars made hollow and leak proof, excess heat generated dissipated through circulation of cooling water in chamber plates. Inlet- outlet Nozzel connections, pipe, water tank with angel Iron stand, cooler, cooler pump etc.. fitted in such a way , so that circulation of cold water and outgoing hot water is smooth .</p> <p>f. Rota Evaporator: 50-3000ml capacity, DIG RMP control with full range of accessories.</p>	<p>one</p>
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Item S.No.	Name of the Item	Broad Specification	Quantity
18.	Assman's Psychrometer	Assman's Psychrometer IMD/IS No. 6805-1973 <ul style="list-style-type: none"> • -5to 50⁰C tmep. • 0.1⁰C accuracy 	Two unit

Item S.No.	Name of the Item	Broad Specification	Qty
19.	Solar Radiation Measuring system		one unit

Solar Radiation Measuring System one

Specifications

The equipment consists of following components for the measurement of global and diffuse solar radiation

- (i) Pyranometer two No.
ISO Secondary Standard, Double 2 mm Glass dome, integrated leveling, Sun Shield, Water proof plug and socket cable connection.
Spectral range 310 – 2800 nm, response time < 5 sec, non linearity < 0.2% (0-1000 w/m²) directional error < 10 w/m² sensitivity 7-14 μV/W.m² (variation < 1%) operating temperature –40° C to +80° C Thermopile detector and 10 m cable.
- (ii) Shading Ball Assembly one No.
Includes top mounting plate and second side mounting plate. Shading balls on adjustable rods for upto 2 rear mounted global radiation instruments, to provide diffuse solar radiation measurements.
- (iii) Data Logger one No.
All Weather Stand data logger for use with above solar radiation Instruments.
8 Single ended input channels
1,2 or 3 pairs of channels
Configured as differential inputs
Should be used with Pt-100 or 10 K thermistor Temperature sensors
Differential input ranges +/- 20 mV to +/- 2.5 V Full scale, 24 bits resolution
Single ended input ranges 20 mV to 2.5 V full scale, 24 bits resolution
Resolution 1μV, maximum offset 10μV, Accuracy 0.05 % (for 24 bits)

S.No.	Name of the item	Broad Specification	Quantity
20.	Atomic Absorption Spectrophotometer	<p><u>Specifications for AAS compiled</u></p> <p>Integrated bench top Double beam Atomic Absorption Spectrophotometer for multi element measurements incorporating flame, Graphite furnace with computer assisted change over between flame mode to graphite furnace mode</p> <p>The system should be capable of analysing multiple elements in a sample in a single run with fast sequence</p> <p>Wave length range 185-900 nm</p> <p>Holographic rating- 1800 lines/mm</p> <p>Spectral band width variable (0.2-2nm) with high intensity deuterium back ground corrector, with 4 steps automatic switching.</p> <p>C2H2, N2O and Argon cylinder and air compressor</p> <p>Titanium burners with precise knobs for burner optimisation; burner movement through computer all three directional i.e. height, lateral and rotational</p> <p>Fully inert adjustable nebulizer</p> <p>Cathode lamps for Fe, Cu, Mn, Zn, Ca, Mg, Na, K, B, Cd, As, Pb, Cr, Ni, Hg, Se, Al, Si.</p> <p>The lamps should have guaranteed 5000 mA hr of usage time.</p> <p>Automatic computer controlled lamp selection 6-8 lamp holder for hollow cathode lamp.</p> <p>Lamps should be automatically switched off at the end of analysis</p> <p>Graphite analyser and PC/software controlled furnace auto sampler</p> <p>Provision for manual or auto sampling with flame, furnace and vapour operation</p> <p>PC with laser printer based data control and recording system with windows based software.</p> <p>Computer controlled motorized burner system and gas flow monitoring for constant fuel and oxidant ratio</p> <p>Safety: Auto shut down against power failure and other safety compliance like flame shields and protection</p>	1 Unit

		<p>against heat and radiation, safety interlock, shut down gas if flames not detected, prevent ignition if burner system not properly installed.</p> <p>Installation complete with furnace/exhaust hood, compressor, gas cylinders and operational training to be provided at the site</p> <p>Working on 230 V, 50 Hz</p> <p>20kba UPS with 1-2 hr back up</p> <p>Warranty for minimum 12 months</p> <p>Spares and consumable to be supplied for 2 years</p> <p>Note: The supply with installation is to be done at CAZRI, Regional Research Station, Kukma Bhuj</p>	
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Item S. No.	Name of Item	Broad Specification	Qty.
21.	Automatic weather station	<ul style="list-style-type: none"> • Wind Speed Sensor : 0 to 200 km/hr, Accuracy : $\pm 5\%$ • Wind Direction Sensor : 0 - 360° increments, Accuracy : 7°, Digital • Relative Humidity Sensor: Range: 0% to 100%, Accuracy: $\pm 1 - 2\%$. (2 Nos.) • Temperature Sensor: Range: -50° to +60°C., Resolution 0.01°C, Accuracy: $\pm 0.3^\circ\text{C}$ (2 Nos.) • Rainfall Sensor/Gauge : 0 – 500 mm/hr, Accuracy : $\pm 3\%$ • Solar Radiation sensor: Range: 0 – 1700 W m², Resolution 1 w m², Accuracy: 1 w m² • Leaf wetness sensor: Range: Dry – 0.0 mV & 100% wet 1400 mV • Barometric Pressure: 50 kPa to 110 kPa, accuracy: $\pm 1\%$ • Soil Temperature: - 20 to + 60°C, Accuracy: $\pm 0.1^\circ\text{C}$ (3 Nos.) • Soil Moisture sensor/probe (3Nos.) • Automatic ET calculation logger/facility • Data downloading system from weather station and data analysis away from the weather station site • Data logger and required software at weather station site • Compatibility with computer USB/serial port for connecting with computer/laptop • Tripod stands for mounting the sensors, data logger and other accessories etc. <p>Optional</p> <ul style="list-style-type: none"> • Quantum light sensor (400-700 nm) • CO₂ sensor (measuring CO₂ in ppm) • Extension cable for air and soil temperature and moisture • UV sensor 	1 Unit

Item S. No.	Name of Item	Broad Specification	Qty.
22.	Single Ear head thresher	Standard size - Length - 735 Width - 425 Height - 1176 Cylinder speed 300-600 rpm Input capacity : 30-60 Operated by 0.5 HP Electric motor with feed inlet, beater type threshing cylinder, aspirator blower & grain out let.	1 Unit

Item S. No.	Name of Item	Broad Specification	Qty.
23.	Temp/RH/CO₂ meters	CO ₂ : 0 to 2000ppm, Accuracy:± 5% Temperature : 14 to 140 ⁰ F(-10 ⁰ C to 60 ⁰ C), Accuracy: ±0.9 ⁰ F (±0.9 ⁰ C) RH : 0.0% to 99.9%, Accuracy:±3%	1 Set

Item S. No.	Name of Item	Broad Specification	Qty.
24.	Digital conductivity meter	230 V 50 Hz ZC, 3½ digit LED display with facility for temperature compensation and cell constant adjustment supplied with two units of conductivity cell, Conductance range 1 µm ha to 0.1µ m ha with 5 or 7 ranges, resolution ± 3% to ± 5% cell constant compensation adjustable Resistance range 1 ohm to 1 M ohm.	1 Unit

Item S. No.	Name of Item	Broad Specification	Qty.
25.	Power Tiller with standard accessories including trolley	Engine type -3 cylinder, 4 stroke Bore- 70mm Stroke-78 mm (3.07") Displacement- 900 cu. Cm Max. Torque- 5.2 kg-m (1900 rpm) Output/rated- 18.5 hp/2700 rpm Cooling system- water cooled Starting system – starter motor 12 volts –1.6 kw Transmission- Selective sliding gear 6 forward speed, 2 reverse speed Speed 14 km ph. Brake- Waterproof expanding shoe lyre with parking brake. Tyres- front 5-12, Rear-8-18 Overall dimensions- width-1025mm, height -1475mm, length-2565mm Ground clearance- 230 mm Turning radius- w/o brake, 2.5 mm & w/brake 2.1mm Hauling system- 2 wheel trailer, 3 tonnes (Gross wt.) <u>Performance</u> Tilling depth-150mm Tilling width-1100mm No. of tynes -28 Plough depth- 220mm	1 Unit

Item S. No.	Name of Item	Broad Specification	Qty.
26.	Mist Chamber	<p>Technical specification of Mist Chamber</p> <ol style="list-style-type: none"> 1. Total Size : 18ft x 10 ft. x 12 ft.: 9ft (LxWXCH:SH). 2. Total Area : 180 sq.ft. 3. No. of Span : 1 No. 4. Pre Entry Chamber : 5 ft x 5 ft x 6.25 ft. (LxWxH) 5. Hardening Chamber : 5 ft x 5 ft x 6.25ft.(LxWxH). Modulator actuated dampers will be provided for lowering temperature 6. Shape: Even shape 7. Structure : Main structure will be made up with GI (47mm x 47mm) ISI standard IS 1239 class B anti-corrosive, humidity resistant pipe with IS 4736-1968/ISO 65-1973 zinc coat as approved For maximum Indian wind load conditions, structural trusses will be provided for absolute strength wind load 120 km/hr. Superstructure: Fabrication with 50 x 25 mm tubular sections with supporting members of 50 x 25 mm pipes, bent to size, jointed with Screw/nut and bolt. The whole tubular structure will be powder coated aluminium material. 8. Glazing/Covering: With 6mm Polycarbonate sheet UV stabilized multi layered (6mm) transparent polycarbonate with at least 87% transmission. The sheets are to be fixed on roof and over all sides of the greenhouse. Sides & roof covering with anodized aluminium stripping, geeignet gasket and silicon (translucent) treatment for proper holding, insulation and thermal safety. All the joints of the sheet dully sealed with silicon sealant to avoid the air/water leakages. 9. False ceiling : A false roof at the height of 6.25 m with multi walled polycarbonate sheet 6 mm thick will be provided to maintain the temperature. 10. Pre Entry & Main doors: The outer door will be of swing type (Door size : 3.5 ft x 6 ft) & inner door will of sliding type of anodized aluminium section with Polycarbonate sheet 6mm thick as cladding material with proper lock and pinion system the air curtain will be controlled through limit switch. 11. Ventilation : Providing top ventilation with gear mechanism for opening of roof at center 60 cm wide full length. On opposite sidewall heavy-duty low speed axial flow fan with aluminium louvered covering should be provided. Four sliding windows (polycarbonate sheet) size 3'x4' (HxW) with stainless steel screen should be provided on the horizontal side wall of the mist chamber. The internal and external surface area of the fan and pad will be covered with filter screen of stainless steel 40 x 40 mesh. 12. Lighting System : To maintain Light Intensity upto 10 K Lux with fluorescent light & high intensity sodium lamp (FL Qty-10 Nos. & 	1 Unit

Sodium Lamp- 3 Nos.)

13. Misting / Fogging System :

Option-I : To increase the humidity the chamber up to 90% ± 5% by providing misting nozzles hanging type, with pump, PVC tank, disc filter. The Leak Prevention Device (LPD) valve will be fitted at the bottom to close the outlet to emitter and remain closed on switching on water until the working pressure reaches the threshold-opening valve. The pipe connection of PVC pipe of 6 kg/sq cm (ISI mark) with necessary fittings and PVC ball valves, etc. with 1 H.P. re-circulating pump will be provided. Foggers / micro sprinklers of Netafim / DAN make of high degree precision will be fitted to PVC piping. Installation of LDPE Pipe 16mm dia for mounting of fogging nozzles, 500 litre PVC water storage tank for fogging system 32mm.

Option-II : To increase the humidity in the chamber, up to 90% ± 5% by providing & Installation of 1 way fogging nozzle 7 LPH discharge each nozzle with LPD (30 Nos.). This fog nozzle with anti-drip valve, stainless steel and super-flex fog line. Also used as quality replacements for most brands of fog systems. Produces superfine 10 micron water droplets and 0.008” nozzle orifice. 10 micron droplets are 1/10 – the diameter of a human hair. Unique check valve should prevent the nozzle from dripping after shut down and to reduce calcium build-up. Fine-easy will operate at up to 1200 PSI. and would be easy to assemble by hand. Nozzle will be fully cleanable and repairable allowing for extra years of service duty.

Fine Fog Triple filtration system (10-5-1 Micron) : Filtration system is designed to remove sediment, rust, and sand from all the water entering Fine Fog pump module and help prevent nozzle blockage from foreign debris. The Fine Fog filtration system will work to avoid sediment build up in the system helping to protect the fog module and nozzles from pre-mature service caused by excessive build-up calcium deposits and other foreign matter blocking the nozzle orifice.

Option-III : The humidifier should run on centrifugal principle which breaks the supplied water into very fine from of 5~ 10 microns (See specifications) Humidifiers No : Two with digital RH controller

PARTICLE SIZE :	FOG MAX Humidifier 5 -10 Microns.	FOG -360 Humidifier 4 -8 Microns.
POWER SUPPLY :	Single Phase AC, 220 V/50 Hz.	Single Phase AC, 220 V/50 Hz.
OPERATING TEMP.	0 -50 deg. C.	0 -50 deg. C.
HUMIDIFICATION CAPACITY :	6 – 8 Ltrs. / Hr.	4 – 6 Ltrs. / Hr.
POWER INPUT :	90 W.	90 W.
WATER CONNECTION :	0.5 Inch (< 5 kg/ cm ²).	0.5 Inch (< 5 kg/ cm ²).
AREA COVERAGE :	600 – 800 sq. fts.	400 – 600 sq. fts.
DIMENSIONS :	370 X 370 X 480 mm.	400 x 400 x 380 mm.
WEIGHT :	9 Kgs. (dry).	9 Kgs. (dry).

		<p>14. Shading : 50% UV stabilized nylon fabric HDPE shading net (Netion Make), Green / Black colour with manual rolling system will be provided.</p> <p>15. I COOLING SYSTEM FOR MIST CHAMBER : Temperature Range 30°C ± 2°C THROUGH FAN AND PAD (ECS) COOLING UNIT cooling (Evaporative Cooling System (ECS): Fan & Pad system (Pad size: 10' x 4'x4")-1 Unit with Celdak Cellulose Pads (Thailand make) to lacquire proper CFM of air movement per sq.ft. of area will be provided. Even water delivery through distribution pipe will be ensured. Slow water contamination and efficient water flow, online water filter, capacity calculated on required water flow rate will be provided. Facility is essentially made for water softening and filtration unit to prolong the life of the pad. On opposite wall heavy duty Slow Speed Axial Flow Fans 24" (2 nos.) Single phase with Aluminium louvered covering will be provided. Polymer water storage tank 500 litre capacity, 0.5 HP motor (ISI make),sand filter, Tray Aluminium water Distribution and return system and other accessories will be provided. Fan will be covered by 40 SS mesh from inside greenhouse & on the Pad side it is covered with outside.</p> <p>16. II COOLING SYSTEM FOR HARDENING CHAMBER : Air-conditioning system with (Temp. Range: 25 to 30°C ± 2°C)-Air-conditioning 1.5 ton Window/Split type Qty-2 nos. With lap-top and laser data recorder printer facility-Qty.-1 .</p> <p>17. Miscellaneous : One Wash Basin/Stainless sink with two tap, water accessories with cocks, required PVC piping and GI pipe line ISI marked of suitable dia (15 mm-25mm) with necessary GI fittings (T,L bow, bend, sockets valves etc.)</p> <p>18. CONTROL PANEL FOR MIST CHAMBER Compact control panel facility should also be provided with Mains ON/OFF Switch (L&T Make) Light Indicator for main light. Digital Cooling and Humidity indicators.</p> <p>19. Plitz/Cyclic Timer : Separate for each growth chamber –Specific for fogging, misting system, controlled by timer, to reduce water logging condition in the Green House/Poly House. Specification :-0-999 Min/second, 0-999Min/sec OFF, automatic cycling. Accuracy quartz, Power output can be directly drive misting unit load upto 4.4 KVA, Input 200 V to 240 VA.C, Phase-Single, 50 Hz, Ambient 4°C to 50°C, RH upto 90%</p> <p>20. Side Wall Foundation:</p>	

(1) 23 cm thickness dwarf wall of 2' below and 2' above ground level to check lateral moments of water. Base PCC 3" thick 20" x 20" wide, than "wide 4" high first base line, than 9" wide second base line, Damp proof cement (DPC), Water proofing will be done in accordance with latest standards conforming to IS 2645 Frame base block height 2'x1'x1' (1:2:4 concrete) Duly plastered & painted with samosam weather proof.

21. Flooring / Drainage :

Cemented Floor : Made of crushed bricks 4" thick with 10cm thick graded stone (Rodi) which is further flushed with 4:2:1 (Rodi : sand : cement) with proper drainage system.

22. Electrical Device : High quality ISI approved Fittings with copper multi strand twisted Fire Resistant Grade (Plaza or ISI make) wires stds. of safety with proper M.C.B. with appropriate electrical points of 5/15 Amps combined (Havells/ Anchor make).

23. Air curtains at Pre-entry chamber

Air Curtains with 18 CRCA power coated on both side, Color Cream/ white, Blower make : Blow tech make., Blower type : Extruded aluminium dynamically balanced impeller. Air velocity : 2800 to 3000 FPM. Suction : Slotted sheet. Motor : 1 No. (1/3 HP), single phase. Size -3 feet, at pre entry point with auto main ON/OFF operation at the time of door opening/ closing. **Qty-1.**

24. Water storage Tank : 5000 liter capacity PVC water storage tank with pine connections and 1 HP motor for water distribution.

25. Benches with 2 Tier :- Heavy duty GI welded with 10 gauge spot-welded MS bench with anti corrosive, humidity resistant treatment. Size :- 6'X2'X2.6" (Lx WX H) Qty- **4 Nos.**

Bench Structure :-

Table Frame :- 25 x 5 MS angle

Bench Top Platform : - 10 gauge GI netted top

Design for :- Root trainers and plastic pots.

26. Power Back up : Provided with 4-6 hrs electric power backup for maintaining temperature 30°C through inverter and batteries.

27. Terms and conditions:

1. Proper CFM of air movement should be provided. Even water delivery through distribution pipe should be ensured. Contamination-free and efficient water flow should be through online water filter. Delivery shall be within 8-10 weeks from the date of order. Ordered firm has to confirm the willingness within one month.

2. Payment will be as per official procedure

3. Electricity and water supply will be provided by us. Connections (within 30 meter) have to be

		<p>made by the firm/fabricator.</p> <p>4. Drawing of the proposed unit shall be enclosed by the firm while submitting tender/quotation.</p> <p>5. Any variation/modification during installation will only be permitted with the permission Institute authority.</p> <p>28. Warranty : Two years against any manufacturing defects.</p> <p>Note: The Supply with installation is to be done at CAZRI, Jodhpur</p>	
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Item S. No.	Name of Item	Broad Specification	Qty.
27.	Extruder	<p>Automatic, pasta extrusion machine used kneading every type of dough from all types of flour.</p> <p>Suitable for production of protein enriched expanded product at optimum extrusion condition and different legume incorporations (gram. Moong, moth, guar etc.) on cereals and coarse cereals including bajra. Flaking of millet.</p> <p>The system should be made completely from stainless steel (all contact) and should comprise of : Tank of kneading capacity of 3 kg. & stainless steel screw.</p> <p>Stainless steel shaft which can be dismantled for cleaning & maintenance. Teflon Dies of every kind of pasta. Automatic pasta cutter with speed variation and stainless steel blade.</p> <p>Fan for rapid drying of the product. Manual Raviolic group.</p> <p>6 kg/hr hourly pasta production rate. Single phase motor with 1 hp</p>	1 Unit

QUESTIONNAIRE

BIDDERS SHOULD FURNISH SPECIFIC ANSWERS TO ALL THE QUESTIONS GIVEN BELOW. IN CASE A QUESTION DOES NOT APPLY TO A BIDDER, THE SAME MAY PLEASE NOTE THAT IF THE ANSWERS SO FURNISHED ARE NOT CLEAR AND /OR ARE EVASIVE, THE BID WILL BE LIABLE TO BE IGNORED.

1. Bid No _____ date for bid opening on _____
2. Offer is open for acceptance
3. Brand of goods offered :
4. Name & address of manufacturer
5. Station of Manufacturer
6. What is your permanent Income Tax A/C No (PAN no).
7. Confirm whether you have attached your latest/current ITCC or certified photocopy thereof.
8. Status:
 - (a) Are you currently registered with the Directorate General of supplies & Disposals (DGS&D) for the items(s) quoted? If so, indicate the date up to which you are registered and whether there is any monetary limit on your registration.
 - (b) Are you a small scale unit currently registered with the National Small Industries Corporation (NSIC) UNDER Single Point Registration Scheme for the item(s) quoted? If so, indicate the date up to which you are registered and whether there is any monetary limit on your registration.
 - (c) If you are not registered either with NSIC or DGS&D, please state whether you are currently registered with Directorate of

industries of the State Government concerned. If so, indicate the date up to which you are registered and whether there is any monetary limit on your registration.

(d) Are you registered under the Indian Companies Act. 1956 or any other Act? Please attach certified copy (copies) of the relevant registration certificate(s) in confirmation to your above answer(s).

9. Please indicate: -

Name & full address of your Banker(s):

10. Whether you are:

(i) Manufacture of the goods quoted; or

(ii) Manufacture's authorized agent for those goods.

11. State whether business dealings with you have been currently banned by any Ministry/Deptt. Of Central Govt. or any State Govt.

Signature of Witness

Signature of Bidder

Name & address of Witness

Full name, designation &
Address of the person signing above
For and on behalf of M/s.

(Name and address of the bidding firm).

BID FORM AND PRICE SCHEDULES

Date:

To

THE DIRECTOR,
CENTRAL ARID ZONE RESEARCH INSTITUTE
NEAR I.T.I., JODHPUR - 342003 (RAJASTHAN)

Ref: Your bidding documents No.dated :

Having examined the above mentioned bidding documents, including addenda Nos.. (if any), the receipt of which is hereby duly acknowledge, we the undersigned, offer to supply and deliver..... (Description of goods and services) in conformity with the said bidding documents for the sum as shown in the price schedules, attached herewith and made part of this bid.

We undertake, if our bid is accepted, to deliver the goods and complete the services in accordance with the delivery schedule specified in the schedule of Requirements after fulfilling all the applicable requirements incorporated in the above-referred bidding documents.

If our bid is accepted, we will provided you with performance security as per the instructions specified in GCC clause 7 and in a form acceptable to you in terms of GCC clause 7.5 for a sum equivalent to 10% (ten percent) of the contract price for the due performance of the contract.

We agree to abide by this bid for the bid validity period specified in the ITB clause 15 (read with modification, if any, in the Bid Data Sheet) or for the subsequently extended period, if any agreed to by us and it shall remain binding up on us and may be accepted at any time before the expiration of that period.

Until a formal contract is prepared and executed, this old bid together with your written acceptance thereof and your notification of award, shall constitute a binding contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this.....day of200

Signature
(in the capacity of)
Duly authorized to sign bid for and on behalf of

PRICE SCHEDULE FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIGIN LOCATED WITHIN INDIA

1	2	3	4 Price per unit						5	6	7
Schedule No.	Item Description No.	Accounting unit & quantity	Ex-factory/ex-ware house/ex-show room off the shelf	Excise duty if any	Packing and forwarding	In-land Transportation	Insurance, other duties and taxes, if any (other than sales tax) and incident at costs	Incidental services (including supervision)	Over all unit price (a+b+c+d+e+f)	Total price	Sales tax payable, if contract is awarded
			(a)	(b)	(c)	(d)	(e)	(f)	3x5		

Total bid price in Indian/foreign currency: (in figures):
(in words).....

Signature of bidder
Name
Business address

Place:
Date:
Note:

- I. In case of discrepancy between unit price and total price, the unit price shall prevail.
- II. If nothing to the contrary to this effect is mentioned under Section VII (Technical Specification and Quality Control Requirements), the bidder shall give list of spare parts for two years operation separately indicating description, quantity, unit price and total price in the above format for those items whose scope of supply includes spare parts as per ' Technical Specifications' give is Section VII.

PRICE SCHEDULE FOR GOODS TO BE IMPORTED FROM ABROAD

1	2	3	4	5				6	7	8	9	10
Schedule No.	Item Description	Country of origin	Accounting unit & quantity	Unit price FOB at Port of loading	Unit price CIF at port of entry	Inland transportation charges insurance and other local costs incidental to delivery, if specified	Incidental Services Including supervision	Overall unit Price (b+c+d)	Total price	Indian agent's name	Indian agent's commission as a % of FOB price included in the quoted price	Ship ment weight and volume
				(a)	(b)	(c)	(d)		4x6			

Total bid price in foreign currency: (in figures):
 (in words).....

**Signature of bidder
 Name and address**

Place:
 Date:
Note:

- i. In case of discrepancy between unit price and total price, the unit price shall prevail.
- ii. If nothing to the contrary to this effect is mentioned under section VII (Technical Specification and Quality Control Requirements), the bidder shall give list of spare parts for two years operation separately indicating description, quantity, unit price and total price in the above format for those items whose scope of supply includes spare parts as per ' Technical Specifications' give is Section VII.
- iii. Indian agent's commission shall be paid in Indian Rupees only. No change due to exchange variation shall be allowed.

SECTION VII/2

BANK GUARANTEE FORM FOR BID SECURITY

Whereas.....(name of bidder) (here-in-after called " the bidder") has submitted his bid dated.....(date) for the supply of.....(brief description of the relevant goods and services) (here-in-after called "the bid").

KNOW ALL PEOPLE by these presents that WE (name of the bank) having registered office at (full address) (hereinafter called "the bank") are bound unto..... (name of the purchaser (hereinafter called " the purchaser")) in the sum of (amount in figures and in words) for which payment well and truly to be, made to the said purchaser, the bank binds itself, its successors and assigns by these presents.

Sealed with the Common Seal of the said bank this..... Day of.....200.....

THE CONDITIONS of this obligations are:

- 1. If the bidder
 - (i) Withdraws its bid during the period of bid validity specified by the bidder on the bid form; or
 - (ii) Does not accept the correction of errors in accordance with the instruction to Bidders

OR

- 2. If the bidder, having been notified of the acceptance of its bid by the purchaser during the period of bid validity:
 - (i) fails or refuses to execute the contract form, if required: or
 - (ii) fails or refuses to furnish the performance security, in accordance with the instructions to Bidders:

We undertake to pay to the purchaser up to the above amount upon receipt of its first written demand, without the purchaser having to substantiate its demand, provided that in its demand the purchaser will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the above mentioned two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including 60 (sixty) days after the period of bid validity and any demand in respect thereof should reach the bank not later than the above date.

Signature of the Bank
SEAL of the Bank

Date.....
Place.....

SECTION VII/3
MANUFACTURE'S AUTHORISATION FORM

To

THE DIRECTOR,
CENTRAL ARID ZONE RESEARCH INSTITUTE
NEAR I.T.I., JODHPUR - 342003 (RAJASTHAN)

Dear Sirs,

Ref: Your Bidding Documents No.....

We wish.....who are established and reputable manufactures of(name and description of the goods offered in the bid) having factories athereby authorize Messrs(Name and address of the agent) to submit a bid, negotiate (as and if necessary) and conclude the contract with you against your above mentioned Bidding Documents for the above goods manufactured by us.

No company or firm or individual other than Messrs.....(name and address of the above agent) is authorized to bid, negotiate and conclude the contract against this specific Bidding Documents for the above mentioned goods manufactured by us.

We hereby extend our full guarantee and warranty as per clause 15 (give below) of the General Conditions of Contract, read with modification, if any, in the Special Conditions of Contract for the goods and services offered for supply against this Bidding Document by the above firm.

Yours faithfully,

(Signature, name and designation)
for and on behalf of
Messrs.....
(name & address of the manufactures)

Note: This letter of authorization should be on the letterhead of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacture.

SECTION VII/4

BANK GUARANTEE FORM FOR PERFORMANCE SECURITY

To,

THE DIRECTOR,
CENTRAL ARID ZONE RESEARCH INSTITUTE
NEAR I.T.I., JODHPUR - 342003 (RAJASTHAN)

Whereas (Name and address of the supplier) (hereinafter called "the supplier") has taken in pursuance of contract no... .. dated To supply (description of goods and services) (hereinafter called "the contract").

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a recognized bank acceptable to you, for the sum specified therein as security for compliance with its (supplier's) obligations in accordance with the contract.

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of (amount of the guarantee in words and figures) such sum being payable in the types and proportions of currencies in which the contract price is payable and we undertake to pay you, upon your first written demand declaring the supplier to be default under the contract and cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We further undertake to pay you the sum so demanded notwithstanding any dispute or disputes raised by the supplier in any suit or proceedings pending before any court or tribunal relating thereto liability under this present being absolute and univocal.

We also hereby waive the necessity of your demanding the said amount from the supplier before presenting us with the demand.

We further agree that you shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the contract or to extend the time of performance by the supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by you against the supplier and to forbear or enforce any of the terms and conditions relating to the contract and we shall not be relieved from our liability under this guarantee.

This guarantee shall be valid and shall remain in force until day of
... , 20... ..

Dated the Day of 20
For
(name of the bank)

Signature
Name of the officer
(in block letters)
Designation of the officer... ..
code no.

Name of the bank and full address.

SECTION VII/5

CONTRACT FORM

Address of the purchasers
Office issuing the contract

Contract No.....

Date :

This is continuation to this office Notification of Award No. dated

1. Name & address of the Supplier.
2. Purchasers bidding documents No. dated (followed by further communication No. . and date, if any, from the purchaser to the supplier)
3. Suppliers bid No. dated (followed by further communication No. date if any, from the supplier to the purchaser).
4. The documents, which are deemed to form and be read and construed as part of this contract are :
 - (a) The Bid Form and the Price Schedule submitted by the bidder.
 - (b) The Schedule of Requirements;
 - (c) The Technical Specification and Quality Control Requirements'
 - (d) The General Conditions of Contract; and
 - (e) The purchasers Notification of Award

Certain stipulations out of the above documents are reproduced below for ready reference. However, the words and expression used in this contract agreement shall have the same meanings as are respectively assigned to them in the conditions of Contract referred to ;

5. Details of Performance Security

6. Brief particulars of the goods and services which shall be supplied/provided by the supplier are as under :

Schedule No.	Brief description of goods/services	Accounting unit	Quantity to be supplied	Unit price	Total price	Delivery terms (FOB/CIF/Free Del, at site/CIF etc.)

Total value (In figure)..... (in words).....

7. Delivery schedule

- 8. Details of inspection, test and quality assurance
 - (a) Designation and address of inspection agency
 - (b) Mode (s) and place (s) conducting inspections and tests.
- 9. Transit Insurance
- 10. Dispatch Instructions
- 11. Details of consignee (including port consignee, if any)
- 12. Payment terms
- 13. Paying Authority
- 14. Warranty clause

.....
 (Signature, Name and address
 of the purchasers authorized functionary)

Signature the contract
 For and on behalf of

Received and accepted the contract
 Agreement

.....

(Signature, name and address of the suppliers authorized executive
 For and on behalf of
 (Name and address of the supplier)

.....

(Seal of the supplier)

Date :

Place :