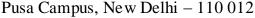
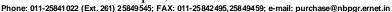


National Bureau of Plant Genetic Resources

(Indian Council of Agricultural Research)







File No. <u>Open Tender 2016</u> <u>Dated: 3rd February, 2016</u>

Sub: Open Tender Enquiry – (Two Bid System): For supply of Equipments & Instruments.

(NOTE: The envelope containing the tender as well as subsequent communications should be addressed and delivered to 'The Director, NBPGR, Pusa Campus, New Delhi -110012.

To:

Sir(s),

Sealed tenders are invited (under Two Bid System – (1) "TECHNICAL BID" & (2) "PRICE BID") by post/per bearer from bonafide manufacturers / authorised dealers for supply of "Equipments & Instruments" as per categories / specifications and/or quantities detailed in the Schedules / Specifications (Annexure – V) attached.

The "Tender Documents" comprising the Compulsory Documents (Annexure I), <u>General Terms and Conditions of Contract</u> (Annexure II) and the <u>Special Terms and Conditions of Contract</u> (Annexure III) which will govern any contract made, the <u>Tender Application Form</u> (Annexure IV) and the <u>Schedule of contract / specifications of items</u> (Annexure-V) are enclosed herewith. If you are in a position to quote for the contract in accordance with the requirements stated in the attached schedule as per the terms and conditions stated, please submit your quotation to this office.

The tender document may be obtained from the NBPGR, Purchase Section in person by the bonafide applicant or his authorised representative by applying in their letter head at a cost of Rs. 1000.00 (Rupees One Thousand Only) for each item. The "tender documents" can also be downloaded from the web site www.nbpgr.ernet.in, and in such case the same may be signed and submitted as per the procedures mentioned hereinafter along with the fee for the "tender documents" @ ` 1000.00 (Rupees One Thousand Only) for each item (To be submitted along with the Technical Bid. It should not be enclosed in the envelope containing the Price Bid). All the payment may be made by Demand Draft; drawn in favour of Director, NBPGR, New Delhi. Cheques will not be accepted.

Tenderers are requested that, before quoting their rates or sending tender, the tender forms may please be read out thoroughly (line by line) so as to have a clear knowledge of the requirement contained therein, otherwise purchaser will not be held responsible for any error / oversight of his own and the penalties shall be levied for not complying with the requirements stated herein or supply of the required item/services.

The form is a Standard Form of Tender. Certain clause / clauses may not be applicable in some cases. So, Tenderers are requested to ignore such clause / clauses, which are not applicable in the instant case.

The Tender forms containing the compulsory documents (Annexure – I), the Terms and Conditions (Annexure – II), the Special Terms and Conditions of Contract (Annexure III), the Tender Application Form (Annexure IV) and the Schedule of contract / specifications of items (Annexure-V), form of Bank Guarantee (Annexure VI) should be returned in original along with the technical bid document, intact, after filling up the same and duly signing in full with stamp, on each page, failing which the tender shall be liable for rejection.

In the event of the space on the Schedule of contract / specifications of items/proforma being insufficient for the required purpose, additional pages may be added. Each such additional page must be numbered consecutively, bearing the Tender Number and be duly signed and stamped by the tenderer. In such cases, reference to the additional pages must be made in the Tender Form. If any modification of the schedule is considered necessary, you should communicate the same by means of separate letter sent along with the Tender.

PARTICULARS

Cost of each Tender Document	Rs. 1000.00 (Rupees One Thousand Only) for each
	item in the shape of Cash/DD in favour of Director,
	NBPGR Payable at New Delhi
Period for supply of Blank Tender Forms and related documents at the NBPGR on all Working Days (Except 2 nd Saturdays, Sundays and Holidays)	05.02.2016 to 29.02.2016 up to 3.00 pm
Due Date & Time of submission of completed Tender Document in the Tender Box kept at the Main Gate no. 2, NBPGR, New Delhi	01.03.2016 upto 2.00 pm
Date & Time of Opening of Technical Bid	02.03.2016 at 10:30 AM
	(Name and Sr. No. of item must be mentioned on
	the outer envelope)
Bid Security /Earnest Money	Amount of bid security /Earnest Money as indicated against each item in Annexure –V may be submitted with Technical bid in separate envelope super-scribed in case of participating for more than one item super-scribed "EMD for(name of item)
Submission of Tender	Tender /Quotation for each item may be submitted separately with Tender fee of ` 1,000/- and appropriate value of EMD/bid security
Performance security / Security Deposit Money to be deposited	10 % of the contract Value of each of individual equipment & instrument to be purchased from the tenderer after selection / finalization.

The Director, NBPGR, does not pledge himself to accept the lowest or any tender and reserves the right of accepting or rejecting the whole or any part of the tender without assigning any reason thereof. Canvassing in any form by the tenderer or his representative with any of the officials of NBPGR shall render the tender liable to be rejected.

THE FIRM IS REQUESTED TO FOLLOW THE CHECK LIST AT THE TIME OF SUBMISSION OF TENDER DOCUMENT WITHOUT WHICH THE OFFER IS LIABLE TO BE REJECTED:

CHECK LIST
[Without which the offer is liable to be rejected)
1. Tender Document Fee: Rs DD No dated
2. EMD Value: Rs DD No Dated
3. Valid Trade Licence Certificate: Valid upto
4. Warranty Certificate: At least for one year, submitted [Yes /No]
5. VAT / CST /Tin No. certificate: Submitted [Yes /No]
6. Complete Name & Address of Company/Firm (Principal/Authorised agent *) should be mentioned [Yes/No]
7. Original tender document signing all the pages: Submitted, [Yes/No.]
8. COPY OF PAN/TAN CARD: Submitted, [Yes/No.]
9. Details of IFSC Code, Account No. and Name of Bank and its Branch for local and import payment through LC/FTGS. [Yes/No]
Copy of authorisation certificate issued by the Principal firm must be enclosed with the Technical Bid, failing which the Tender will be rejected.

Enclosures:

- 1. Annexure I (Compulsory Documents).
- 2. Annexure II (General Tender Terms & Conditions).
- 3. Annexure III (Special Tender Terms & Conditions).
- 4. Annexure IV (Tender Application Form).
- 5. Annexure –V (Schedule / specifications of items/equipment).
- 6. Annexure VI (Form of Bank Guarantee)

Yours sincerely,

Assistant Admn. Officer (P)

To The Director, NBPGR, Pusa Campus, New Delhi -110012

		<u>COM</u>	IPULSORY D	OCUMENT	Γ <u>S:</u>	
	[With	out which	the offer is	liable to b	e rejected)	
1.	Tender Document Fee: `		_DD No		_dated	
2.	EMD Value: `	_ DD No		Dated		
3.	Valid Trade Licence Certifica	ate: Valid ι	upto			
4.	Warranty Certificate: At lea	st for one	year, subm	itted [Yes	/No]	
5.	VAT / CST /Tin No. certifica	te: Submit	ted [Yes /N	o]		
6.	Complete Name & Addres [Yes/No]	s of Com	pany/Firm	(Principal <i>)</i>	Authorised ag	ent *) should be mentioned
7.	Original tender document s	igning all t	he pages: S	ubmitted,	[Yes/No.]	
8.	COPY OF PAN/TAN CARD: S	ubmitted,	[Yes/No.]			
9.	Details of IFSC Code, According through LC/RTGS. [Yes/No]		and Name (of Bank a	nd its Branch f	or local and import payment
	f authorisation certificate which the Tender will be i		y the Princ	ipal firm	must be enclo	sed with the Technical Bid,
Date:-			Signature	of the tend	lerer:-	
Place:-						
			Full Name			
			Designati	on:-	(Office s	eal of the tenderer)

GENERAL TERMS AND CONDITIONS FOR TENDER / BID

1. PREPARATION OF TENDER:

- a. The original Tender form containing the Terms and Conditions (General and Special) and the Schedule should be returned in original after filling up the form and duly signing in full on each page with stamp, whether you are quoting for any item or not, failing which the tender is liable to be rejected.
- b. If any item in the schedule is not being tendered for, the corresponding space against the item should be defaced by writing 'not quoting'.
- c. In the event of the space on the schedule form being insufficient for the required purpose, additional pages may be added. Each such additional page must be numbered consecutively, bear the Tender Number and be duly signed and stamped by you. In such cases, reference to the additional pages must be made in the Tender Form.
- d. The Tenderer shall, wherever call upon to do so, give full information with reference to the services in hand and shall also permit the Director, NBPGR or any other officer nominated by him to inspect the premises of the tenderer at all reasonable times and shall give full assistance and information as may be required by him in connection with the contract.
- e. The tender is liable to be rejected if complete information is not given therein or if the particulars and date (if any) asked for in the tender are not duly & fully filled in. Particular attention may be given to the dates of delivery, places of delivery and also to the particulars referred to in the conditions of contract so as to comply with them.

2. PROCEDURE FOR SUBMISSION OF TENDERS / BIDS:

The tender should be submitted in 'TWO BID' SYSTEM:-

i. TECHNICAL BIDS:

- a. <u>TECHNICAL BIDS for each item</u> is to be submitted in separate envelope, sealed and super-scribed with the wordings "<u>TECHNICAL BID</u>" for "_______" (Name of item).
- b. The original copy of tender (Annexure I to Annexure VI), duly completed and signed on each page, should be submitted/returned, enclosed along with the "TECHNICAL BID".
- c. The "Technical Bid" shall contain Earnest Money and the Cost of the Tender Document (if downloaded from the web), both in the form of demand drafts as prescribed herein before, and all the technical details & documents along with commercial terms and conditions in support of the quoted equipment.
- d. The Earnest Money Deposit (EMD) for each item should be submitted in separate envelope super-scribed with the wordings "EMD".
- e. Prices / Costs of the items <u>should not be</u> indicated anywhere in the Technical Bid. This should be followed meticulously failing which the tender will be rejected.

ii. PRICE (FINANCE) BID

- a) PRICE (FINANCE) BID for each ITEM is to be submitted in SEPARATE sealed envelopes, super scribed with the wordings "PRICE (FINANCIAL) BID" and the "NAME OF THE ITEM". All such sealed envelopes of Price Bids for individual items are to be kept in a large sealed envelope, again superscribed with the wordings "PRICE (FINANCIAL) BID". This should be followed meticulously failing which the tender is liable to be rejected.
- b) The 'Price/Financial Bid' will contain item-wise price / cost for the items mentioned / quoted in the Technical Bid.
- c) The comparison of price shall be taken on the date of opening of tender in case of foreign currency involved.
- iii. Both the Technical Bid envelope and the Price (Financial) Bid envelope, prepared as above, are to be kept in a larger single envelope super-scribed with "TENDER (TWO BID SYSTEM) FOR SUPPLY OF Equipments and Instruments so as to give a double cover protection.

iv.	The outer cover sh	rould also be seale	ed and addressed	to the Director,	NBPGR, N	New Delhi	super-
	scribed tender for	" 		" (name of it	em)		

NOTE: Tenders submitted without following the 'Two Bid' System procedure will be rejected.

3. LATEST HOUR FOR RECEIPT OF THE TENDER:

Your tender must reach this office not later than the date and time notified in the Tender Notice stated in the TENDER DOCUMENT. Any tender received after that shall be rejected. In the event of the stipulated date of opening of the tender being declared a closed holiday for Govt. offices, the date of opening of the tender(s) will be the next working day. Tender sent by hand delivery, should be delivered at this office not later than the due date and time stipulated in the schedule of tender.

4. THIS TENDER DOCUMENT IS NON-TRANSFERABLE

5. PERIOD FOR WHICH THE OFFER WILL REMAIN OPEN AND PERIOD OF VALIDITY:

All tenders should remain open for acceptance for <u>a period of Six months</u> from the date **of opening of the tender.**

6. OPENING OF TENDER:

- I. The **Technical bids** will be opened on the specified date and time in the presence of bidders/representatives who choose to attend on the date and time as mentioned.
- II. The bidders/ representatives who are present in the opening shall sign the attendance sheet to mark the presence.
- III. The **Price (Financial) bids** of the bidders whose Technical Bids are found technically suitable (after the selection of samples / demonstration of equipment / Item, if any) only will be opened later. **The decision** of the committee on technical suitability shall be final and shall not be opened for discussion.

7. PRICES:

- i) Prices are to be quoted in Indian Rupees/FOB.
- ii) Prices quoted in the Price (Financial) Bid must be meaningful and measurable in the context.
- iii) The prices quoted must be per unit shown in the schedule inclusive of all packaging, installation and delivery charges wherever applicable. Refunds on account of returnable package (if any) are to be separately specified. Price must be clearly shown in figures and words.
- iv) Tenderers should clearly specify whether prices quoted are inclusive of Sales Tax/ VAT / duties / statutory charges or such charges as extra. Where no specific mention is made to Sales tax / VAT/ or other duties, prices quoted shall be **deemed to be inclusive of such taxes** / charges.
- v) The Director, NBPGR is not authorized to issue 'C/D forms'.

8. BID SECURITY / EARNEST MONEY:

The EMD/bid security may be submitted with appropriate value for each item separately as indicated in Annexure -V.

9.

a) SECURITY DEPOSIT / PERFORMANCE SECURITY:

On acceptance of the tender, within the period specified by the Director, NBPGR, the successful tenderer / contractor shall deposit a sum equivalent to 10 % (Ten Percentages) of the contract value, rounded off to the nearest Rupee valid upto 60 days after the date of completion of all contractual obligations by the supplier including the warranty obligation before the supply is made. This has to be in the form of a Bank Draft / Bank Guarantee, (Annexure VI) drawn in any of the nationalised bank, in favour of the Director, NBPGR, New Delhi. On due performance and successful completion of the contract in all respect including warranty period, the security money deposit shall be returned to the contractor without any interest. Also, non-performance/unsatisfactory performance or violation of terms and conditions of the contract will make the contractor liable for forfeiture of security deposit. The decision of the NBPGR shall be final and binding on this count.

10. <u>DELIVERY TERMS:</u>

- a) Time and date of delivery: The time and the date of delivery of the stores / date of execution of work as stipulated in the schedule shall be deemed to be the essence of contract and delivery / execution must be completed not later than the date(s) specified. The delivery of the stores / execution of work / providing the services etc. are required to be completed within a period as specified in the purchase order and at the place mentioned therein. Normally maximum of 6 weeks time is allowed from the date of issue of the purchase order for execution of the supply of the equipment / article. However, the time allowed for execution of order shall be governed by the stipulated time mentioned on the purchase order of Delivery of equipment / Items.
- b) For the purpose of the contract FOB value will be taken into consideration only.
- c) Delivery period for goods including Erection/installation and commissioning (if required, depending on the goods ordered) are to be completed within 90 days after opening of LC for imported item.

d)	Terms of Inspection by the purchasers representative.	
e)	Training of purchaser's operator(s) for operating the goods ordered,	as and if necessary
<i>C)</i>	operator(s) is/are to be trained for a period of	-
	premises/supplier's premises for successfully operating the goods purchased.	The training shall be
	completed by	

f) In case this office does not receive supply of the above item(s), by due or extended date of delivery, the above stated order will stand CANCELLED, unless extension is sought for and granted by the competent authority for the late supply.

11. PAYMENT TERMS:

- a) 100% Payment will be made only after supply, inspection, complete installation and satisfactory demonstration of performance of the item / equipment / instrument (including supply of all accessories) subject to deposition of a sum equivalent to 10 % (Ten Percentages) of the contract value as mentioned under Security Deposit / Performance Security Clause mentioned above or submission of Performance Bank Guarantee for 10% value of the order valid for the warranty period from any Scheduled Bank. No advance payment before effecting supply as above either part or full of any kind shall be made under any circumstances.
- b) Payment shall be made through Electronic Clearing System/RTGS/Letter of Credit. Normally, payment is made within six weeks after satisfactory inspection, installation and performance of the item / equipment / instrument subject to submission of appropriate and correct invoice, Challans and other documents as deemed fit.

12. Other Terms

- a) Dispute Resolution Mechanism (Arbitration): If any dispute or difference arises between the purchaser and the supplier relating to any matter connected with the contract, the parties shall make every effort to resolve the same amicably by mutual discussions. However, if the parties fail to resolve the dispute or difference by such mutual discussion within 30 days, either the purchaser or the supplier may give notice to the other party of its intention to refer the same to arbitration. The arbitration shall commence thereafter. The arbitration shall be conducted by a sole arbitrator, who will be appointed by Director, NBPGR on behalf of the Secretary, ICAR and the procedure to be followed in this respect will be as per the Indian Arbitration and Conciliation Act, 1996. The venue of the arbitration shall be the
- b) <u>Document</u>: The tenderer should have a valid <u>Trade licence</u>, <u>PAN / TAN / other statutory document as applicable</u> and produce attested copies of such certificates along with the tender papers in Technical Bid, failing which the tender is liable to be rejected.
- c) Right to accept / reject: The NBPGR authority reserves the right to reject any or all tender without assigning any reason whatsoever. Also, the NBPGR authority reserves the right to award any contract to any successful agency at its discretion and this will be binding on the tenderer.

13. <u>Liquidated Damage Clause</u>:

If any time during the performance of the contract, the supplier encounters conditions hindering timely delivery of the goods, the supplier shall promptly inform the purchaser in writing the fact of the delay and likely duration of the same. After receipt of suppliers communication, the purchaser shall decide as to whether to cancel the contract for the un-supplied portion after the existing delivery period, or to extend the delivery period suitably by issuing an amendment to the contract. If the supplier fails to deliver the goods and / or perform the services within the contractual delivery period for reasons other than circumstances beyond supplier's control (which will be determined by the purchaser) and the purchaser extends the delivery period, the purchaser will also deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% (half per cent) of the delivered price of the delayed goods or unperformed services for per week of delay or part thereof until actual delivery of performance. The maximum limit of such deduction will however, be 10% (ten per cent) of the contract price of the delayed goods or services.

Further, during such delayed period of supply and / or performance, the supplier shall not be entitled to any increase in price and cost, whatsoever, or any ground. However, the purchaser shall be entitled to the benefit of any decrease in price and cost of any ground, whatsoever, of the goods & services, supplied during the period of delay.

The purchaser's letter (to the supplier, with copies endorsed to others concerned) extending the delivery period will be subject to the above conditions.

Assistant Admn. Officer (P)

SPECIAL TERMS AND CONDITIONS

The following special terms and conditions shall apply for supply of <u>Equipments & Instruments"</u> at NBPGR, Pusa Campus, New Delhi -110012.

A. <u>INSPECTION / INSTALLATION OF ITEMS / EQUIPMENTS</u>:

Supplies shall be accepted as completed subject to satisfactory and complete installation (upto full potentials claimed for that respective equipment/ Item) of the equipment / items supplied including supply of all accessories, and certified by the assigned officer, and subsequent inspection by Indenting Officer and verification committee of NBPGR, New Delhi. Any defect found in the materials / equipment / items supplied / work done will render the supplies / work open to rejection and decision of the Indenting Officer and Verification Committee, NBPGR, New Delhi shall be final and legally binding. The tenderers shall have to take the same (rejected store) back at their own cost and risk, and shall replace such rejections with the items of standard specifications / quality as acceptable to the NBPGR, authority. Alternatively, the stores may be purchased from others / work may be executed through others, at the risks and costs of the tenderer, at the discretion of the authority.

B. WARRANTY / GUARANTEE:

Along with the **Technical Bid** the following information are to be provided exclusively.

- (i) All the **equipments** shall be carrying <u>at least</u> 1 (One) year warranty / guarantee against defects of manufacturer/workmanship and poor quality of components. Accordingly, the **tenderers shall indicate clearly** and exhaustively the mandatory warranty / guarantee offered by them / by the manufacturing / supplying firms, its duration, as well as the various Terms & Conditions involved therein, at the time of submission of the <u>Technical Bid</u> papers.
- (ii) <u>Uptime guarantee</u>: During the warranty/guarantee period the firm will maintain the equipment in good working condition. All the complaints will be attended by the firm within 24 hours of the dispatch of a complaint to their office. The firm shall ensure that machine is set right within 10 days (Ten Days) of the intimation.

C. DETAILS OF ITEMS QUOTED:

It is mandatory to indicate the full name, make / brand, model number, and details specification of the equipments quoted by them, (in addition, a brochure of product information may be attached along with). Tenderers also have to indicate clearly the Name, Address and all Contact numbers of the MANUFACTURING FIRM

The payment will be made in shape of ECS/RTGS directly into the Bank Account of the Tenderer . Hence the Tenderer is requested to submit the mandate form duly filled in and submit along with the bills.

Assistant Admn. Officer (P)

TENDER APPLICATION/DECLARATION FORM

1		Name of the firm:-	
	а	Full Postal Address:-	
	b	Cell Phone No.	
2	С	Telephone No:-	
d		Fax No.	
	е	E-mail address:	
3		Date of Establishment of Firm:-	
		If your Firm Registered under:-	
4	а	The Indian Factories Act:-	
4	b	Any other Act, if not, who are the owners	
	b	(Please give full address):-	
5		Name and Address of your Bankers stating	
J		the name in which the Account stands / Bank	
		Details :-	
		Are you in the list of approved contractors of	
6		any other organisations / institutions, if any	
		give details (Append extra page if necessary):-	
7		Any other information which you consider	
		necessary to furnish:	
		<u>UNDERTAKING:</u>	
		a. I, the undersigned certify that I have gone through the	e terms and conditions mentioned in the
		tender document and undertake to comply with them. b. The rates quoted by me are valid and binding upon me	for the entire period of contract and it is
		certified that the rates quoted are the lowest quoted for ar	•
	С	c. The earnest money of Rs to be deposited	d by me has been enclosed herewith vide
		Demand Draft no, Dt	, drawn on
		Demand Draft no, Dt bank, Branch	•
		d. I hereby undertake to supply the items as per direction	ns given in the tender document / supply
		order within stipulated period.	
	е	e. I/We give the rights to Director, NBPGR to forfeit the	
iŧ	am	delay occur on my/agent's part or failed to supply the ms of desired quality.	article within the appointed time or the
	CIII	There is no vigilance/CBI case or court case pending ag	vainst the firm
		There is no vignance, est case or court case perianing ag	samse the min.
			Signature of the tenderer:-
			Full Name: -
			Designation:-
	Γ	Date:	(Office seal of the tenderer)
	_		

Place:

PLEASE QUOTE YOUR RATE AS PER THE GIVEN SPECIFICATION

The amount of Ernest Money /Bid security to be deposited for each of the item quoted is mentioned against each serialised item below. The Earnest Money for each item may be submitted separately alongwith technical bid.

<u>List of Instruments & Equipments</u>

no.		Name of Equipment/ Instrument	Specification	Qty. (Nos.)	EMD value
1.	UNEP- GEF	Fabrication of Chambers for GMO Detection Research Centre for unidirectional flow of GMO detection facilities as per ISO17025, to maintain contamination-free environment and optimum temperature with restricted entry	Tenders are required from reputed companies (Preferably ISO/CE certified for supply installation testing and commissioning of Fabrication of chambers for GMO Detection Research Centre (for unidirectional flow of GMO detection facilities as per ISO17025, to maintain contamination-free environment and optimum temperature with restricted entry). The Fabrication and furnishing work comprise of following:- A. Puff Insulated Shelters of 12' x 28' and an add on room of 8' x 12' with extra roofing on top of these laboratories using galvanised structures/Trusses Further covered with Bare Galvalume Sheet (Shape Evan Span) with proper drainage arrangements raised over a 6" platform. Technical Specifications of Bare Galvalume Sheet.:- Equivalent High tensile 550 Mpa yield strength, bare Galvalume trapezoidal steel sheet with grade Az 150 in 0.50mm (TCT) (Total Coated thickness) Total Shed Area: 30' x 30' with Galvanised sq.pipe framing and a slope of 5' at centre. Overall size of shelter area (Including existing Shelter): 30' x 28' x 10' (L x W x H) The New Area will further divided in to three section of 14' x 12', 8' x 12' and 6' x 8' with individual sections further connected with a common corridor of 1' x 28' which will converted into 6' x 28' using existing corridor of 5' x 20' Facility structure should be made up of 60mm Puff insulated pre fabricated panels (Both side Pre	01	44,000/-
	GEF	GMO Detection Research Centre for unidirectional flow of GMO detection facilities as per ISO17025, to maintain contamination-free environment and optimum temperature with	testing and commissioning of Fabrication of chambers for GMO Detection Research Centre (for unidirectional flow of GMO detection facilities as per ISO17025, to maintain contamination-free environment and optimum temperature with restricted entry). The Fabrication and furnishing work comprise of following:- A. Puff Insulated Shelters of 12' x 28' and an add on room of 8' x 12' with extra roofing on top of these laboratories using galvanised structures/Trusses Further covered with Bare Galvalume Sheet (Shape Evan Span) with proper drainage arrangements raised over a 6" platform. Technical Specifications of Bare Galvalume Sheet.:- Equivalent High tensile 550 Mpa yield strength, bare Galvalume trapezoidal steel sheet with grade Az 150 in 0.50mm (TCT) (Total Coated thickness) Total Shed Area: 30' x 30' with Galvanised sq.pipe framing and a slope of 5' at centre. Overall size of shelter area (Including existing Shelter): 30' x 28' x 10' (Lx W x H) The New Area will further divided in to three section of 14' x 12', 8' x 12' and 6' x 8' with individual sections further connected with a common corridor of 1' x 28' which will converted into 6' x 28' using		

arrangements.

Puff Insulated Door (2m x 1m) Flush type with sealed gaskets and locking arrangement having insulated Glass hatch window (with blinds wherever required for the windows) with necessary door closures and locking system (Total 6 Nos. including One Emergency Exit) should be provided. Floor 60mm thick with puff insulation and further covered Vitrified Tile flooring of approved colour.

Four nos. of Static Stainless Steel Pass Boxes (450mm x 450mm x 450mm) duly installed in the Facility.

Good quality Stainless steel sink (Dual bowl) duly fixed on granite slab with half round tap fittings in Washing area should be provided in Autoclave / Washing Area with provision to connect Distillation Unit and Vertical Auoclave with Steam release arrangements and proper Exhaust system.

Standard provision of Electrical points with LED lights 12W, air-conditioner points, 2 power points should be made available in all sections (Havells/Legrand/Equivalent make)

All Electrical wiring should be of ISI and FR grade (Polycab / RR Cable / Finolex/Plaza make) duly in suitable DLP turnkey (Casing Capping) as required by the PI. 50mm 4 core armoured cable (ISI mark) with Bus Bar, ON/OFF switch and proper electrical connection (Approx. 30m)

Powder coated Mild Steel Frame Tables with adjustable Polymer legs duly fixed with termite resistant 19mm wooden board finished with Sunmica (Both side) having One drawer and one cupboard, standard fittings, locks, channels and hinges (Total 3 work stations in every 12'Table) with Black Granite Top (4 Nos.).

The work should include leak proofing.

В.

Furnishing and Painting of Existing Laboratories/Chambers/Rooms: Lab No.1 (Size: 20' x 20'), Room No. 1 & 2 (Size: 20' x 10' each) and Room No.3 (Size: 20' x 12'): Vitrified Tile flooring (2ft x 2ft approx size of tiles), window vertical blinds of size 6 feet x 4.5 feet. The work also comprise of painting with Apex paint, providing side tables with Granite top of 20mm thickness in room No.3.

Electromagnetic Inter Locking Arrangement at the Entrance door

Technical details of locking systems:

- ✓ Advance programming function for different level within group to maximize management control
- ✓ Support multiple proximity, keypad, biometric, smart card and RS 485/ Wiegand reader.
- ✓ Versatile software feature support wide range functions.
- ✓ Capability of connecting external backup power supply for emergency.
- ✓ Auto-detect reader on line status.
- ✓ Can be Offline / Online use.
- ✓ Externally programmable interface.

D. One year warranty/maintenance

OPTIONAL (To be Quoted Separately)

- A. Portable fume hood with filters: Width Approx. 2 feet,
- B. Fire alarm system with Portable Fire- Extinguisher in each Room (Total 6 Nos.)
- C. Smoke detector
- D. Computer Tables (2 Nos.): Approx. Size (2.5 ft x 2.75 ft)
- E. Hydraulic Stools (10 Nos.)
- **F. CCTV camera** with 8 channel DVR and HD cameras (Complete with 20") LED monitor and wiring.
- G. Insect trap (UV trap)
- H. On-site warranty/maintenance for 3-5 years after one year warranty/maintenance
- 1. Tenderer must commit to provide a trouble free after sales service/maintenance service within 24-48 Hrs. after the intimation of complaint
- 2. Tenderer must provide a Schematic Layout Diagram along with constructional drawing along with the Tender, failing which tender shall be cancelled.
- 3. User reserves the rights to reject or accept any/all tender without assigning any reason thereof.
- 4. The tenders not submitted in 2-bid system (Technical and Price Bid form) will be rejected
- 5. Tender are liable to be rejected if they are not in line with the technical specifications of the Tender Notice/Or quoted as per the tender specifications.
- 6. Proof of experience by providing a list of satisfied users.

2.	UNEP-	Dual Split Air	Description: Dual Split Air conditioners	4 nos.	16000/-
	GEF	conditioner	2. Quantity: 4 Nos.		
			3. Cooling/Heating capacity: 18,000-24,000 BTU		
			4. Dual zone set up Air handler x2		
			5. Outdoor unit consist of 2 Nos. of Emerson make compressors (One working and another		
			as standby controlled through timer) duly connected with imported copper tubing, nitrile		
			insulations and refrigerant filling duly fitted on powder coated stand.		
			6. Power requirement: 4 kVa, Single phase 220 V/60 Hz		
			7. Indoor unit controlled through LCD remote controlled with 4 kVa stabilizers		
			8. Only licensed and authorized system should be quoted with all accessories, minimum one year on-		
			site warranty, list of satisfied users, original technical literature and operation manual, installation,		
			and compliance statement of specifications with deviations clearly marked.		
	~ - ~ -		9. Price for AMC for 5 years after one year of warranty may also be quoted		100001
3.	C-3, C-4	Upright	Upright Frame: Ergonomic Stand with inbuilt Motorized stage Z-focus with a step size not more than 15-	1	49000/-
		Microscope for Imaging of	25nm. Equipped for Bright Field, Phase Contrast and Fluorescence visualization. Microscope frame should		
		Coloured and	include a Touch Screen Panel for microscope control Transmitted Light System: Transmitted light axis with Field Diaphragm and equipped with 12V 100W		
		Fluorescent	Halogen /LED light Illumination with intensity control inbuilt into main frame.		
		Specimens	Condenser: Motorized Condenser of 0.9 NA for Bright field and Phase Contrast technique with necessary		
			Phase rings for all the objectives listed below.		
			Eyepiece: Trinocular head with 100:0 light sharing between eyepiece and camera port, diopter with 10X		
			Eye piece, not less than F.O.V of 22mm or higher FOV, eye pieces-2 nos.		
			Nosepiece : Motorized minimum 6 position revolving nosepiece together with pre-centering for all the		
			objectives. Should have motorized DIC prism slot		
			Stage: Motorized X-Y Stage with sample holder. The stage should be accompanied with XYZ Joystick		
			controller. Objectives:		
			The following Fluorescence grade objectives to be provided		
			Plan 10X 0.25NA PH,		
			Plan 20x 0.4 NA PH		
			Semi-Apo 40X 0.8,		
			Plan Apo 100x Oil, N.A 1.4~0.7 (Variable NA).		
			All objectives with better NA would be preferred.		
			Fluorescence Module: Motorized Fluorescence light path having 5 or more motorized filter position turret		
			is required. Filters for dyes DAPI, FITC and TRITC to be included.		
			Fluorescence Light Source: LED light source integrated with LED modules of 365nm, 470nm, 530nm,		

			 590nm, 620nm having all the necessary LED based Fluorescence filter cubes. Camera: Not less than 5.0 mega pixels or better with cooled CCD dual mode (color & monochrome) camera, 12 bit, 40 fps or faster at full resolution, Trigger input, along with Microscopy C-mount. Software: Software to control the above mentioned microscope, CCD Camera. Must include features like Z stacking, Multi-Channel acquisition, 3D / 4D view module, image analyzing and processing: adjustment of contrast and brightness and intensity measurement. Other Conditions: All Microscope parts including illumination systems, camera and software should be from single manufacturer for better system integration and control. Spare bulbs etc. for minimum 5 years use. Computer workstation: Desktop computer workstation for the above system with the following specifications: (a) Branded Computer (e.g Dell/HP): Compatible OS like Windows 7 or above, 64 bit operating system, High speed Xeon processor or latest, minimum 16 GB RAM, minimum 500 GB HDD, DVD writer, Firewire port, MS office and Antivirus software loaded (b) Monitor: 23 inch or larger TFT monitor (c) Printer: laser colour printer 		
4	N.F.	Mobile Workstation with Accessories and Software (RT)	Processor: 2.9 GHz dual-core Intel Core i5 processor (Turbo Boost up to 3.3 GHz) with 3MB shared L3 cache. Memory: 8GB of 1866 MHz LPDDR3 on-board memory. Storage: 512 GB PCle-based flash storage. Graphics and video support: Intel Iris Graphics 6100. Screen Size: 13" retina display; Dual display and video mirroring (up to 3840x2160 pixels) on external displays; Thunderbolt digital video output; Native Mini DisplayPort output; HDMI video output. Connections and expansion: MagSafe 2 power port; 720p FaceTime HD camera and Stereo speakers and Dual microphones with Headphones port; Two Thunderbolt 2 ports (Up to 20 Gbps); Two USB 3 ports (up to 5 Gbps); HDMI port; Headphone ports; SDXC card slot Wireless: 802.1lac Wi-Fi wireless networking; IEEE 802.11a/b/g/n compatible; Bluetooth 4.0 wireless technology Keyboard and trackpad: Full-size backlit keyboard with ambient light sensor Force Touch trackpad. Battery and Power: Built-in lithium-polymer battery; ~ 10 hours wireless web; ~30 days standby time; Mag Safe 2 Power Adapter with cable. Electricity supply compatibility: Indian condition and plugs and adapters 240V AC; Frequency: 50Hz to 60Hz Operating System: OS X El Capitan. Ms Office: Office for Mac Home and Business 2011 or later version with lifetime license. Accessories: One Apple Thunderbolt to Gigabit Ethemet Adapter	1	6000/-

			One Apple Mini DisplayPort to VGA Adapter		
			One USB SuperDrive with attached USB cable (DVD Drive)		
			One Magic Mouse		
			One Thule 13" Stravan Sleeve for MacBook Pro		
			Warranty: Three Year comprehensive warranty		
			Terms & Conditions:		
			1. Supply includes complete installation and configuration of all the supplied software and hardware.		
			2. All software licenses and subscriptions must have media along with it.		
			3. OEM should have regional presence for sales & support.		
			4. The Firm should provide the brand, model, version along with complete technical details of the		
			quoted items.		
			Items with latest configurations must be quoted.		
5.	NICRA	Infrared Thermal	θ . το	1	20,000/-
		Imaging System	• It should provide high resolution for better thermal image of plant canopy or individual leaf under stress		
			condition.		
			Thermal line analysis		
		(RT)	Low/high temperature selection		
			 Data and image transferable to computer and analyzed for averaging, differential temperature 		
			Temperature range: -20°C to +100° C		
			IR resolution :320 x 240 pixels or more		
			Thermal sensitivity / NETD : < 0.06° C		
			Field of view (FOV): 15-25° x 15-20 °/0.5m		
			Minimum focus distance: 0.4 m (1.31 ft.)		
			Focal length: 18 mm (0.7 in.)		
			Spatial resolution (IFOV): 1.36 mrad		
			F- number: 1.3		
			Image frequency: More than 30 Hz		
			Focus : Manual		
			Digital Zoom: 2 x and 4 x		
			Emmis ivity correction: 0.01 to 1		
			Detector type: Focal Plane array (FPA), uncooled micro bolometer		
			Spectral range: 7.0-14µ		
			Display: Touch screen, 3.5 in. LCD, 320 x 240 pixels		
			Image adjustment :Auto or manual		
			Image modes :IR image, visual image, MSX, picture in picture, thumbnail gallery		
			Operating temperature range: -20° to +50°		
			Accuracy: ± 1° C		
			Battery type: Li-on, rechargeable with 3 hrs battery backup		

			Power saving: Yes Image storage: Standard JPEG, including measurement data, on memory card Image storage mode: Simultaneous storage of images in IR, visual and MSX Data transfer: Through USB Storage: Built in flash memory, SD card (2GB) with more than 3000 images Data acquisition system: With high processing speed for data storage and analysis purpose Warranty: Three years		
6.	CRP-G	Real Time PCR and accessories	 An automated system for both real-time PCR and post-PCR (end-point) analysis using in-built latest model Peltier based PCR machine, instrument with 96 well sample block able to run Standard and Fast run on the same block in the range of 40 cycles in 40-45 minutes. Provision for High Resolution Melting Curve (HRM) analysis and for effective discovery of genetic variation such as SNPs, indels and methylation. Input Voltage: 220V, 60 Hz. Excitation source should be LED based and emission/detection should be CCD, flexible to support 96 well plates, individual tubes and 8 strip tubes. System should be supplied along with software to support applications like absolute and relative quantitation, multiplex PCR and HRM curve analysis for unlimited data analysis. Should preferably support reaction volume in the range of 10-50 µL or broader, precalibrated for at least FAM™/SYBR® Green, VIC®/JOE™, NED/TAMRA, a minimum of 4 or more inbuilt filters without ROX/reference dye. There should be an option of normalization of reaction using any calibrated dye. Annual cost of calibration if any should be clearly mentioned. Addition of new dye should be possible without any hardware change. It should function in a temperature range 37 ℃ -98 ℃ or wider with accuracy of +/- 0.2 ℃ & uniformity of +/- 0.4 ℃. The system should support SYBR Green, Taqman & Hydrolysis Probe chemistry. Licensed, dedicated full version of primer probe design & development guidelines for qualitative and quantitative real time assays should be provided to enable designing of custom oligo assays. The system should be supplied with a dedicated computer system for standalone processing and data analyses as follows-17 processor, 16GB RAM, 2TB hard disk (7200 rpm),21.5 inch full HD monitor with 2GB graphic card, Microsoft window 8 licensed (or higher) and a compatible UPS. The system should be licensed for all Real Time PCR processes. The system must be approved for applicati	02	76000/-

			 Only licensed & authorized real time system should be quoted along with <u>all accessories</u> required for sample preparation such as direct quantification of microvolumes of DNA/RNA, one set of each of the consumables (reagents and plasticwares) for 5000 SYBR green based reactions, minimum 5 year onsite warranty, AMC provision after end of warranty. Also provide a list of satisfied users, original technical literature and operation manual, installation, on-site & in-lab system-application support training of all project staff, continuous technical support from qualified service engineers, assurance for prompt supply of essential consumables to conduct analysis with the instrument & compliance statement of specifications with deviation clearly marked. Manufacturer should assure full system support and continuous supply of reagents & consumables for a period of min. 5 years from date of installation 		
7.	CRP-G	UPS (True on-line double conversion facility)	True on-line UPS system, stand alone /rack mountable working on single phase input, single phase output, IGBT based double conversion digitally controlled microprocessor system, with SNMP card & LCD display with Five year warranty is required for uninterrupted power supply to the Servers and desktop microprocessors working 24 hrs x 365 days uninterrupted. The system must consist of two 10KVA systems working in parallel sharing the power load with hot transfer facility in case of failure of any one of the system ensuring no-break down in operation of connected servers and instruments. The system must have SMF battery power back-up for 3 hrs at full load. The essential features of the system required are as below: 1. Run Environment: a) Storage Ambient Temperature: 0°C to 50°C b) Operating Ambient Temperature: 0°C to 40°C c) Relative Humidity: 0 to 95% non-condensing. 2. System rating and characteristics: a) UPS should be online-Double Conversion with Digital Signal Processor control. b) Should have IGBT based PFC Rectifier and IGBT based Inverter c) Sufficient SMF Batteries for back-up of three hour at full load d) Battery manufacturer's catalogue and other details on warranty to be provided. e) Battery banks with mounting racks for each UPS. f) System with automatic internal bypass to ensure supply of utility power to the connected loads in the event of a UPS power overload or fault; scalable runtime allowing additional run time to be quickly added as required; temperature compensated battery charging for prolonged battery life; intelligent battery management to maximize battery performance, life, reliability and precision charging; automatic restart of lads after UPS shutdown upon return of utility power. g) Serviceability features: Automatic self-test for periodic battery self-test to ensure early detection of	1	8,000/-

battery replacement; warning when a battery in not available for power back back-up; predictive power failure notification

3. System input:

- a) Input Voltage Rating: Nominal 230 V single phase
- b) Input Voltage Range: 120 285 V. In this range UPS should not switch to Battery backup mode.
- c) Input frequency Range: 40 60 Hz. In this range UPS should not switch to Battery backup mode.
- d) Input power factor: > 0.98 at 100% load

4. System output:

Output Voltage Rating: 1 ph, 230 V

Max Configurable Power (Watts): 9.0 KWatts / 10.0 kVA

Nominal Output Voltage: 230V Efficiency at Full Load: 94.4 %

Output Voltage Distortion: Less than 2%

Output Frequency (sync to mains): 47 - 53 Hz for 50 Hz nominal, 50/60 Hz +/-1 Hz, 50/60Hz +/-3 Hz Output Frequency (not synced): 60Hz +/-0.1% for 60Hz nominal, 50Hz +/-0.1% for 50Hz nominal

Load Crest Factor: 3:1 Waveform type: Sine wave

Overload Operation: 60 seconds @ 125% and 30 seconds @ 150%

Output Voltage THD: < 2% for 0 to 100% linear load and < 5% for full non linear load

Output Voltage Tolerance: +/-1% static and +/- 5% at 100% load step

Bypass: Built-in Static Bypass **5. UPS design and fabrication:**

- a) Enclosure: The UPS shall be housed in a free standing enclosure.
- b) Battery housing: Battery housing cabinet to be supplied
- c) Ventilation: The UPS shall be cooled by forced air and shall be equipped with fan monitoring circuits. External battery systems shall be cooled by free-air ventilation and convection according to battery manufacturer requirements.
- d) Inverter/Battery charger: The inverters shall be a high-speed insulated gate-bipolar transistor switch module type (IGBT) and shall be controlled to precisely regulate system output voltage and battery charge current. The inverters shall be temperature protected. In case of inverter over temperature, the unit shall activate an alarm and automatically transfer to static bypass operation.
- e) Static bypass switch: The static bypass switch shall be solid state, rated for continuous duty. The static bypass switch shall automatically transfer the critical load to mains supply without interruption after the logic senses any of the following conditions:
- i. Inverter overload beyond rating
- ii. Battery runtime expired and bypass available
- iii. Inverter failure

- iv. Battery circuit breaker open
- v. Fatal error in control system

6. Display and controls:

a) UPS status messages: The display unit shall display the following metered parameters:

Normal operation: Load power in %; Battery operation: Time in minutes; Bypass operation; Standby; System off

- b) Metered parameters: The display unit shall allow the user to display the following metered parameters: Year, Month, Day, Hour, Minute, Second; Source Input Voltage (Line-to-line, three-phase simultaneous); Source Input AC current (Line-to-neutral, three-phase simultaneous); Output AC voltage (Line-to-line, three-phase simultaneous); Output AC current (Line-to-neutral, three-phase simultaneous); Output frequency; Battery voltage; Battery current (charge/discharge)]; Battery temperature; Output peak current c) Alarms: the display unit shall allow the user to display a log of all active alarms.
- d) Events log: The display unit shall allow the user to display a time and date stamped log of the ~200 most recent UPS status and alarm events
- e) Controls: The following control or programming functions shall be accomplished with the display unit: Silence an audible alarm; Display or program the time and date; Enable or disable the automatic restart feature; Transfer to or from static bypass operation; Program the unit for economy operation; Program the battery charger; Calculate battery back-up time; Test battery condition on demand; Program the unit to periodically test battery condition; Program voltage and frequency windows; Calibrate metered parameters; Adjust set points for different alarms; Set the delay for the common fault contact; Program the unit for soft start for use with a generator.
- f) UPS ON and Off push buttons: Momentary UPS on and off push buttons shall be provided in a user-accessible compartment. Upon activation of the on push button, the UPS shall automatically connect the UPS output to the critical load. Upon activation of the off push button, the UPS shall remove power from the critical load.

7. Installation and commissioning

The UPS must be installed and commissioned cost inclusive basis at the ICAR-National Bureau of Plant Genetic Resources, New Delhi. The required inverter input and output switchgear, cables and other items to ensure full installation, commissioning and operation should be provided as per requirement in the laboratory.

Only licensed and authorized system with full service and maintenance back-up should be quoted with all accessories, a list of satisfied users, original technical literature and operation manual, and in-lab system-application training of all project staff, continuous technical support from qualified service engineers and compliance statement of specifications with deviations dearly marked.

No. of systems required: One

8.	CRP-G	Thermal Cycler	The thermal cycler should include high speed PCR with peltier based heating and cooling system, with an authorized license for PCR applications. The block should be silver/gold anodized silver or of comparable make for 96 x 0.2ml PCR tubes, plates or strips with gradient feature for quick optimization of new protocols. It should be able to accommodate sample volumes from 5-75ul or more. The block temperature range should be of 4-99 °C with accuracy of ±0.2°C (or better) with a minimum ramp rate of 6.0°C/second for heating and 4.5°C/second for cooling. It should have a heated lid in the range of at least 37 – 99°C or better with a feature for automatic adjustment for small variations in the height of the tubes/plates used. It should have auto-restart feature in the event of power failure. Capable of storing minimum 300 programs in system's internal memory. Software should have options like quickstart, adjustable ramp rates, extended self-test, service files, pre-installed protocols etc. Should have more than 80 installations of similar systems from same Principal Manufacturer throughout India (give proof). List of installations should be provided. Comprehensive Warranty on system should be minimum 3 year from the date of Installation and commissioning.	5nos.	50,000/-
9.	CRP-G	Nanodrop Spectrophotome te r	Low volume UV-VIS Spectrophotometer, pedestal sample loading, with a wavelength Range of 190-850 nm or better for a minimum Sample Size of 1 μ L with the path length auto-ranging 0.03 to 1 nm. The wavelength accuracy should be +/- 1 nm and the spectral Resolution: <1.8 nm (FWHM @Hg 254 nm) and the absorbance accuracy of \pm 3% (at 0.97 absorbance at 302 nm) or more. Light Source should be Xenon flash lamp with a 2048-element linear silicon CCD array detector. Absorbance Range on Pedestal should 0-550 A (10 mm equivalent) or better with a detection limit for dsDNA of at least 2 ng/ μ L (pedestal) and a maximum concentration of 27,500 ng/ μ L (dsDNA). The Measurement time should be 8 seconds or lesser. The system should come with a 7 inch high definition colour display, multipoint touch screen, android based Quad Core ARM Cortex A-9 Processor and an internal storage of at least 32 GB and a built in speaker. It should come with the windows based user friendly software to display data in graphical form and numerical form software for all applications including, DNA, RNA and protein estimation as well as preconfigured modules and method editor. Software should have feature to identify the contaminants in the sample and report a corrected concentration. Only licensed & authorized system should be quoted along with all accessories required for sample preparation such as direct quantification of microvolumes of DNA/RNA, one set of each of the consumables (reagents and plasticwares) for nucleic acid estimation, minimum 2 year onsite warranty, to be included.	1	8000/-

. 1	NICRA	Infrared				1	12,000
		Thermometer	Temperature Range	:	-40°C to 100°C		
			Resolution	:	0.1°C		
			Accuracy	:	±0.5°C		
			Repeatability	:	±0.1°C		
		(RT)	Temperature	:	Surface Temperature		
			Measurement modes	:	Ambient Dry Bulb Air Temp.		
					Different Temperature		
			Noise Effective Temperature	:	Less than 0.1℃		
			Spectral Pass Band:	:	8 < Wavelength < 14 Microns		
			Sighting	:	TTL/SLR Intra-Optical Light		
					Sighting		
			Field of View	:	4° to 20° (down to 2 mm)		
			Operating Environment	:	-20°C to 65°C up to 99% Relative Humidity,		
					Non-Condensing		
			Storage Temperature	:	-20℃ to 65℃ up to 99% Relative Humidity,		
					Non-Condensing		
			Response Time	:	<1 Second		
			Emissivity Compensation Operating Distance Sky Radiation Detection Power Requirements Output Signal Battery Life Warranty Supplied complete with a data according	:	Settable from 0.1 to 0.99		
			Operating Distance	:	2 cm to infinity		
			Sky Radiation Detection	:	SKY-SPY		
			Power Requirements	:	Nickel Cadmium Rechargeable Batteries		
			Output Signal	:	Analogue millivolt (10.0mV/°C)		
			Battery Life	:	About 40 Hours		
			Warranty	:	Three years		
			Supplied complete with a data accomillion date/time-stamped records	quisition sy s for PC do	stem and single channel data logger which saves upto 4 wnload		

11.	CRP	Spare parts for	Items	Specification	Qty.		14000/-
	(AB)	LTS, MTS	Injector Solenoid Valve kit/Liquid injection kit	P/N 510-0351-02, 3D, 50Hz, MOFD, 400AC/DC	3		
			Compressore Head Motor	220V AC, 1.0 Amp	3		
			Demand cooling Tempreture Control, (085-0110-01)	Out put -120/240V, Relay-720VA PD, 16W Max., 66°C Max.	3		
			Sentronic Oil Pressure sensing system	Input 120/240V, 50Hz, 1 A, Out put 120/240V, 720 VA PD, 66°C Max.	2		
			Sentronic Oil Pressure Switch(OPS)	Input 5V DC	3		
			Suction valve	13/8, NW 20.32	3	1	
i			Temperature Recorder	-40°C to 60°C, Two Pen Electric	2	1	
			Electronic Humidity Controller	0-100% RH	2]	
12.	CRP	Precision	Maximum Capacity :200g and above			03	6000/-
	(AB)	Analytical Balance	Resolution: 0.1 mg, Win CT equipped Pan size diameter minimum of 90 mm Calibration: automatic motorized internal cali Easy access door system, splash proof key bo GLP/GMP/GCP/ISO compliant output, Counting mode with automatic counting accu Repeatability for 0-200g: 0.1 mg Fast stabilization in 2 sec., Standard RS-2320 Large removable breeze brake with antistatic multiple weighing units, under hook function Linearity:+/- 0.3 mg statistical calculation function Density determination function Warranty of minimum two year for all parts Original brochure and equipment related docu	racy improvement (ACAI) function C communication with PC coating			

13.	CRP	Barcoding	A. Labels	1	20,000/-
13.	CRP (AB)	Software and Hardware including other accessories	 A. Labels Material: Ultra fine highest quality polyester labels which is thermal printable using high level printing technology and which remains without damage for at least 25 years, unless exposed to fire or acid. Size: 2" X 2" Quantity: Approximately 430000 (± 5000) numbers Adhesive: Permanent adhesive that can ensure perfect adhesion on aluminium tri-layered pouches even when the labeled pouches are placed in the extreme temperature range of 20°C to + 50° C. The adhesive should have a minimum tack of 9 N and minimum shear of 10 h. Total adhesive present on each label should be not less than 10g/sq.m Samples of the proposed label and related details (brand, quality of material and printing efficiency) should be provided along with the tender documents. Acceptance will be given after preliminary testing of the labels under end-use conditions. B. Printer One high quality thermal printer with a resolution of not less than 300 dpi and printing speed of not less than 6 inches/sec. The printer should have smudge proof resin ribbons suitable for high quality printing on polyester labels. Printing should be of high quality and legible nature and the quality should be retained for life-time. C. Mobile data terminal Quantity- 3 numbers Quantity- 3 numbers Quantity- 3 numbers Dimensions- not more than 190x 75x 40 mm Weight- not more than 500g, along with the battery Screen- TFT-LCD screen of not less than 3 inches Battery- rechargeable lithium battery of around 3.5 V and 4000m Ah capacity Input- Both soft keyboard and touch inputs Operating system- Should be compatible with windows system and should have inbuilt Wi-Fi and USB interface Memory- minimum of 128 MB RAM/1 GB Flash Operating temperature- 20°C to + 50°C Operating humidity-5% -80 % RH Hardiness- Should be hardy enough to survive drop from le		20,000/-

			E. Computer with UPS One latest Intel Core i7 processor PC with original licensed Windows-7 Operating System with CD/DVD, at least 1TB HDD, Minimum 8GB RAM, DVD-RW, CD-R/RW, 17" TFT Monitor, wireless Keyboard and mouse, MS-Office 2010 with licensed CD/DVD. (Please mention model number in the tender document). One UPS of 1K VA capacity with input range of 135~300V AC; output not less than 230V; operating temperature range not less than 0-45°C; Automatic Voltage Regulation; Pulse Width Modulation; Fuse protection; noise filter; efficient recharging		
			 F. Hand held barcode scanners: Five hand held scanners for routine scanning and identification of labels. There should be provision for upgrading it for use on 2D bar code G. The manufacturer of each product should be ISO certified and the copy of the certificate should be submitted along with the tender document. The supplier should also provide on-site training for handling and management of the barcode system and it should be included in the tender document. 		
14.	CRP (AB)	Compressor of Long Term Storage Module	Supply, fixing installation and testing as required with following specification of Compressor 3 Phase 380-420v, 50Hz (1 nos.) Make : COPELAND / Compatible to existing cooling unit Model : 3DB3F-33KE-TFD-200 (Copeland) / Compatible to existing cooling unit Electrical specification : 3 phase, 380-420 volt, 50 Hz, RLA-16.1 LRA-83.0 Thermally protected Refrigerant Specification : Suitable for R-22 refrigerant Temperature Specification : Should maintain-20°C Required Accessories with compressor:- 1. Sentronic oil pressure sensing system. 2. Demand cooling temperature control. 3. High pressure and low pressure protection switch. 4. Oil pressure switch. 5. Injection solenoid valve kit. 6. Filter drier C-415S. 7. Suction filter SF-4811S. Terms and Condition of tender for supply and installation of compressor :-	1	12000/-

			ensure the con 2. The firm shou specification. 3. Min. one year 4. Compressor sl compatible wi 5. It should compatible with eatures with eatures with eatures.	ative of the firm preferably should visit the site before quoting the prices to a patibility of compressor in existing cooling unit. It is supply the relevant literature along with the features showing the required a guarantee should be provided from the date of purchase/installation. Thould operate/suitable for 3 phase, 380-420v, 50Hz, AC supply and the existing cooling unit. The patible with suction and discharge line diameter, compressor base and other existing cooling unit. It is authorized dealer. It is authorized dealer. It is a provided from the site of purchase/installation.		
15.	CRP	UV Vis			1	20,000/-
	(AB)	Spectrophotometer	Photometric requirement	Specification Monochromator based detection modes for UV-Vis absorbance, System should have either built-in cuvette port or suitable cuvette adapter and microplate drawer and simultaneous kinetic measurements		
			Plate Formats	96, 384 wellplates with dedicated cuvette port or cuvette adapter for cuvette reading and low volume sample analysis (2ul to 10 ul for mol. Bio applications.)		
			Light Source	High energy Xenon flash lamp		
			Detector	Photo multiplier tube(PMT)		
			Spectral Range	200 -1000nm		
			Spectral bandwidth	<2.5nm		
			Wavelength scan speed	10 s from 200-1000nm with 1nm steps		
			Sensitivity	Linearity: 0-2.5 Abs, 2% (for both plate and cuvette) Accuracy: 1.0%+0.003Abs(0-2.0Abs) (for both plate and cuvette) Precision: SD < 0.003Abs		
				96- Well: 6-12 sec.		
			Read Time	384-well: 10-20 sec.		
			Incubation and Shaking	Linear with user definable time and speed		
			Temp. Control	+2 to +4 above ambient up to 45°C.		
			Reading Capabilities	Microplate, cuvette, and nanodrop		
			Path Check	The system should have a path check technology to reproduce the data of well plates similar to that of cuvette values		

technology		
Accessories	Additional pair of Quartz cuvettes, spare UV and white lamps, sample loading plates (pack of 100), Cuvette cleaning solution	
Software	Software should be supplied free of cost with unlimited user license Software integrated system which provides data acquisition analysis and management capability, allowing cross plate analysis and custom calculations. The system should have a path technology to reproduce the data of well plates similar to that of cuvettes values	
Computer	Latest intel core i7 processor PC with original licenced windows-7 operating system at least 1 TB HDD, Minimum 4GB RAM,DVD-RW,CD-R/RW, 17 inch TFT moniter, keyboard, mouse, B&W laser jet printer	
Online UPS	1 KVA online UPS	
On-site Warranty and AMC	Comprehensive on-site warranty period should be for at least two years. Annual maintenance contract charges should be mentioned	
Service and Training Support	Please indicate Local service support available and response time for attending a service call during and after warranty Training for interested staff members on the machine for all the applications with the warranty period. Number of years for which the spare would be available should be indicated.	
Other Requirements	 System should have self diagnostics option Provision for viewing the spectral scanning of 96 or 384 samples in a single graph plot Only licensed and authorized UV-VIS spectro photometer system sould be supplied along with licenced rights for software applications. A copy of the license must be attached. Literature confirming to above parameters should accompany the bid. List of users of the quoted make and model in Delhi/North India may be provided. Performance certificates should be provided The Compliance statement specifications offered by quoted model vis-a-vis above specifications must be submitted with the deviations clearly marked and mentioned towards its non- compliance. The bidder should demonstrate the satisfactory performance of already installed equipment meeting the given specifications with other customers (preferably in Delhi), if the technical committee/Intender demands. 	

16.	CRP	Digital SLR	Type of Camera: Digital Single lens reflex camera	1	1000/-
	(AB)	Camera	Effective pixels: Minimum 24 MP		
	()		Image sensor: Minimum 23 x 15 CMOS sensor		
			Sensitivity: ISO 100-25600		
			Shutter type: Electronically-controlled, focal-plane shutter		
			Shutter Speed: 1/4000 seconds – 30 seconds		
			Detectino range: 1 to + 19 EV (ISO 100, 20°C)		
			Flash Mode: Auto, auto with red eye reduction		
			Image type: JPEG, RAW		
			Focusing screen: Type B Bright view clear matte mark VII screen		
			Autofocus mode: with AF-assist minimum 11 focus points		
			Focus modes: Auto focus		
			Exposure metering system: 3D coloured matrix metering II, Centre-weighted metering; spot		
			metering		
			Monitor: 3-3.2 inches LCD fully articulated		
			Battery: rechargeable Li-ion battery		
			AC adapter and tripod socket		
			Connectivity: USB, HDMI, Wireless		
			Storage: Memory card		
17.	CRP	Water Bath	1) The internal dimensions (inner chamber) should be approximately 400X300X200(WXDXH)	1	2400/-
			2) Inner chamber volume should be 18 L or more		
	(AB)		3) It should be double walled inside and made of stainless steel		
			4) Operating temperature range should be Ambient + 5°C to 99°C controlled by digital PID Microprocessor		
			Controller with digital LED display		
			5) Temperature setting should be through up/down keys with digital display with additional operation		
			programs 2 pattern 8 segment or 1 pattern 16 segments or some equivalent pattern		
			6) The control accuracy acceptable should be within ± 0.05 °C with temperature distribution accuracy of \pm		
			0.1°C		
			7) The heating must be via copper pipe heater (nickel plated) with about 2.2kW or through some equivalent		
			procedure 2) Countdown timer with digital setting and automatic start/stan		
			8) Countdown timer with digital setting and automatic start/stop		

			9) The safety features should include automatic overheating prevention, over current prevention, key lock function, electric leakage breaker and self diagnosis functions as temperature sensor abnormal, heater disconnection etc. 10) The water bath should have a provision for fixing a shaking unit on it to work as shaking water bath which should accommodate 9 pcs of 500 ml beakers (tall beakers), 6 or more pcs of 500 ml conical flasks, 6 pcs of 30 ml flasks and about 50 or more test tubeses tubes 11) The water bath should be supplied with accommodate racks for about 9 pcs of 500 ml beakers (tall beakers), about 6 or more pcs of 500 ml conical flasks, about 6 or more pcs of 30 ml flasks and about 50 or more test tubes 12) It should come with three years warranty		
18.	CRP (AB)	Refrigerator	* 310 - 350 litres capacity double door refrigerator * Provided with Smart Inverter compressor * 10 year warranty * Frost free and door cooling * Humidity control * Interior LED light * Door alarm and lock * 4 Star energy rating	2	1200/-
19.	CRP	Rotavator (Rotary	Tillage Width (cm) : 175	1	2000/-
	(AB)	Tiller)	Gear Box : Single Speed		
		CRP (AB)	Side Transmission : Gear Drive Type of Blade : C No. of Flanges : 9 No. of Blades : 54 Gear Box overload protection: Shear Bolt Weight (kg. approx.) : 400-450 Company should be ISO 9001: 2000 certified		
20.	CRP (AB)	Digital Balance	Digital Platform weighing scale Capacity : 300 kg Accuracy : 20 gm Platform Size : 600 x 600 MM Display : LED	1	600/-

21.	CRP	Power Sprayer	Pressure vessel: Brass sheet	1	1000/-
	(AB)		L x W x H (in mm): 1397 x 216 x 254		
			Pressure vessel: Brass sheet		
			Pump barrel: Brass		
			Spray lance: Brass 90-100cm		
			Delivery Hose: 5mt or as reqd. up to 30 mt		
			Weight: 9 kg (approx)		
			Company should be ISO 9001:2008 certified		
22.	CRP(AB)	Electric Motors	Range : 3 ph -0.75 kw to 22.5 kw (1 HP to 30.0 HP)	1	1800/-
			Supply : 415 V, 50Hz, 3 phase AC		
			Pipe Size : 40 x 32 mm to 100 x 100 mm		
			Total Head : upto 75 metres		
			Capacity : upto 2140 LPM		
			Liquid : Clear Water		
			Rotation : Clockwise as viewed from motor end		
			Company should be ISO 9000:2001 certified		
23.	CRP	Land Leveller	Frame : Draw bar mounting with the help of MS Flat section 75x20 mm, 500-550	1	300/-
25.	(AB)	Land Le vener	mm long		300/-
			Side Support : Vertical -25 x10 mm MS Flat		
			Horizontal - Crescent shape, MS Flat		
			Max. Width 100mm		
			Min. Width 35 mm		
			Thickness of plate (mm) : 10		
			Blade Dia. (mm) : 70 x 10 (High carbon steel)		
			Cetral support (mm) : 28		
			Span (mm) : 1800-1900		
			Weight (kg. approx) : 120-150		
			Company should be ISO 9001:2000 certified		

24.	CRP (AB)	Thresher	Suitable for threshing of crops like wheat, mustard etc. (multicrops) Output : 700-1000kgs of wheat grain per hour Dimensions : 72" x 36" x 60" (Only of the threshing machine, excluding the chassis and pneumatic tyres.) Weight : Approx. 700-800 kgs. Power : Coupled with 10 HP diesel engines, This is a self propelled machine Company should be ISO 9001: 2008 and ISI certified	1	3000/-
25.	CRP (AB)	Shrub Master	Cutting Width : 84" Transport Width (mm) : 2200-2250 Overall Length (mm) : 2700-2750 Cutting Height (mm) : 25-200 Hitch : CAT-II & QH Blade Carrier : Round Plan P.T.O. Shaft : Cluth Type Cear box rating (HP) : 90 Deck thickness (mm) : 3 Side skid (mm) : 5 Weight (kg. approx) : 530 Company should be ISO 9001:2000 certified	1	1200/-
26.	CRP (AB)	Water Tanker	Capacity (Ltr.) : 3000 Main Chassis (mm) : 150 x 75 (4 wheel), 200 x 75 (2 wheel) Drum Sheet (mm) : 4 T or 5 T (Optional) Manhole dia. (mm) : 450-550 Tyres : 7.50-16 (with tube) 12.5/80-15.3, 400/60-15.5 (Tube less wider Tyre) Ring Hitch Dia. (mm) : 50/65 Axle (mm) : 75 Square Weight (kg. Approx.) : 1150-1250 (4 wheel) Company should be ISO 9001: 2000 certified	1	2000/-

27.	CRP (AB)	Tractor Mounted Sprayer	Tank : 400/600 Ltrs. Polythylene Pump : 3 Piston HTTP Gun : Imported 35/45 Feet Pipe Role : 100/200 feet Filter : Mesh SS Filling : Auto Filling Rewinding : Auto Rewinding : Auto Tank Mixer and Pressure Regulator	1	2000/-
28.	CRP (AB)	Electronic Balance	Capacity : 500g Accuracy : 0.001 g Sensitivity : 0.001g Auto internal calibration Battery backup Overload Protection Digital display Low Battery indication Stability indication Auto shut off Provision for interface with computer Should meet ISO quality standard Three years warranty	1	2000/-
29.	CRP-G	Microcentrifuge	System should be microprocessor controlled, programmable, large and individual digital display for easy visibility of different system parameters, have touch key pads for easy data entry, safety features like lid open and lid interlock, noise level should be less than 65dB; maximum Speed: 13000 rpm or higher; maximum RCF: 17000 X g or more; temperature set range should be from -5°C to +40°C; should be supplied with a 24 X 1.5/2ml rotor for micro tubes; with best safety standards and fast acceleration/deceleration approx 12 sec. Only licensed and authorized system should be quoted with all accessories, minimum one year on-site warranty, list of satisfied users, original technical literature and operation manual, installation, on-site and in-lab system- application training of all project staff, continuous technical support from qualified service engineers, assurance for prompt supply of essential consumables to conduct analysis with the instrument and compliance statement of specifications with deviations clearly marked.	3	15000/-

30.	CRP-G	Centrifuge Table Top Refrigerated Centrifuge	Compact, refrigerated table top centrifuge equipped with durable, maintenance-free, brush-less drive motor, with facility for pre-selection of rotational speed or RCF and Automatic Rotor Identification, should be fitted with efficient refrigerating system ecological refrigerant, CFC free, temp range: -2°C to +40°C, should have pre-cooling program, microprocessor controller lid lock system, should have rotor options from 0.2ml to 250ml, variable speed control, adjustable from 3000-18000rpm, micro-processor controlled system with programmable memory \geq 99 programs, with "short" spinning function for quick filtration of samples, should have error indication system for imbalance, improper chosen rotor and in Centrifuge program, option for timed and continuous operation. Rotors to be quoted: 1.5/2ml with adaptor for 0.2/0.5ml etc, rotor and lids should be autoclavable; Fixed angle Rotor: with 30 places for 1.5 / 2.0 ml tubes; 0.2 to 0.6 ml micro tubes Rotor, lids; swing bucket rotor: 4 x PCR plate: additional rotors of different capacity as accessories Power supply: 230V / 50-60Hz Only licensed and authorized system should be quoted with all accessories, minimum one year onsite warranty, list of satisfied users, original technical literature and operation manual, installation, on-site and in-lab system- application training of all project staff, continuous technical support from qualified service engineers, assurance for prompt supply of essential consumables to conduct analysis with the instrument and compliance statement of specifications with deviations clearly marked.	3	42000/-
31.	CRP-G	Refrigerator (RT)	A frost free, vertical type refrigerator with rust proof interior and glass door, with temperature range of 4 to 10°C or wider range. ISO standard, branded, capacity 380 Ltrs or more, auto cooling system, with lock facility, CFC free. System must have atleast4-6 shelves, with Hi/Low temp. Alarm - door ajar, On/Off, defrosting type- auto, voltage 220V, 50Hz. System should be quoted with all accessories, compatible stabilizer, minimum two year on-site warranty and five years or higher warranty on compressor, list of satisfied users, original technical literature and operation manual, free installation, continuous technical support from qualified service engineers, and compliance statement of specifications with deviations clearly marked.	3	5,000/-

Annexure – VI

BANK GUARANTEE FORM FOR BID SECURITY

Whereas	(Name of bidder) (herein after called "the
bidder") has submitted his bid dated (d	ate) for the supply of
(brief description of the relevant goods and services) here	inafter called "the bid").
KNOW ALL PEOPLE by these presents that W	E (name of the bank)
having registered office at (full add	dress) (hereinafter called "the bank") are bound unto
(Name of the purchaser) (here	inafter called "the purchaser") in the sum of
(amount in figures and in	worlds) for which payment well and truly to be, made
to the said purchaser, the bank binds itself, its successors a	and assigns by these presents.
Sealed with the Common Seal of the said bank the	his Day of
20	
THE CONDITIONS of this obligations are:	
1. If the bidder	
(i) Withdraws its bid during the period of bid valid	ity specified by the bidder on the bid form; or
(ii) Does not accept the correction of errors in accord	ance with the Instruction to Bidders
OR	
2. If the bidder, having been notified of the acceptant validity:	ce of its bid by the purchaser during the period of bid
(i) Fails or refuses to execute the contract form, if require	red; or
(ii) Fails or refuses to furnish the performance security, i	n accordance with the Instruction to Bidders.
We undertake to pay to the purchaser up to the above an	nount upon receipt of its first written demand, without
the purchaser having to substantiate its demand, provide	ed that in its demand the purchaser will note that the
amount claimed by its is due to it, owing to the occu	rrence of one or both of the above mentioned two
conditions, specifying the occurred condition or condition	s.
This guarantee will remain in force up to and including 6	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 :	