

TECHNICAL SPECIFICATIONS FOR PCR MACHINE

Department of Botany, University of Delhi North Campus invites e-tenders (in 2 covers) for one unit of PCR Machine. The vendors are required to quote for the PCR as per the detailed specifications listed below. Upon successful evaluation of the technical bids, shortlisted vendors may be asked to display a demo unit of the quoted model, which will be assessed by the duly constituted technical committee. Financial bids of only those vendors will be opened whose models are found suitable by the technical committee after the demonstration. The detailed specifications of the PCR machine are:

1. Gradient thermal cycler with thermoblock to accommodate 96 x 0.2ml PCR Tube/ 96 well PCR plate.
2. Peltier technology based heating and cooling of block with steady slope technology or Dynamic Gradient ensures temperature gradient forms during ramping and all wells come to the designated temperature at the same time.)
3. Should be capable of testing temperatures at Denaturation, Annealing & Extension steps
4. Should be able to test 8-12 different temperatures in gradient function
5. Gradient technology should ensure identical ramp rates in both gradient and normal operation
6. Gradient temperature range from 30 – 99°C with 0.1°C minimum gradient spread
7. Block temperature control range should be 4°C to 99°C
8. 'Fast, Standard and Safe' temperature control modes providing ultimate flexibility for different applications.
9. Adjustable user defined ramp rate to meet sensitive experimental conditions
10. Lid Temperature range: 37 - 110 °C
11. Block Temperature Accuracy: $\pm 0.2^{\circ}\text{C}$
12. Block Homogeneity: $\leq \pm 0.3^{\circ}\text{C}$ (20°C to 72°C); $\leq \pm 0.4^{\circ}\text{C}$ (90°C)
13. Heating rate: 3 °C/s or better; Cooling rate: 2 °C/s or better
14. Flexlid technology to accommodate PCR tubes with flat or domed caps or any other way where heated lid can be adjusted to accommodate PCR tubes with flat or domed caps.
15. Should have large display with Intuitive Graphic programming
16. Should have Administrator and user login with or without PIN for enhanced security
17. Inbuilt advance scheduling feature for users convenience will be a preference
18. Pre-programed protocol templates for easy selection
19. Should have Time and/or Temperature increment cycles in PCR program

20. Customized programming allows a maximum of 20 steps in a cycle and 99 cycles
21. Auto Restart facility with user defined time interval when power fails and resumes
22. Instrument should display remaining runtime in larger font and the status of the run
23. Should have Two USB ports: for Protocol transfer, Self-test, USB, printer / mouse
24. Should have Log book function for error messages and new calibration
25. E-mail Notification facility.
26. Power save Standby function
27. Cooling vents at bottom and rear allow placing other instruments in limited bench space
28. System should have provision to connect any Two blocks (96-well block, 64/32 dual block or 48/48 dual block) for ultimate throughput in future.
29. Interface: USB, Ethernet, CAN in, CAN out
30. Calibration according to NIST (USA), DKD/PTB (Germany) UKAS/NPL (UK), UL/cUL listed
31. Should comply to RoHS (2011/65/EU) or any other internationally acclaimed certification
32. Detail user list of at least 100 users of the same machine in various reputed Research institutes, reputed universities/ CSIR/ICAR/ICMR institutes must be enclosed.
31. A compatible 3 kva online UPS with standard manufacturer warranty should be provided with the instrument.
32. Machine should be supplied with branded Laptop (Intel Core i7 (8 Gen)/16GB/512GB/ SSD/Integrated Graphics/Win – 10 Home+Office/13.3’’) for data recording and analyses
33. The OEM should provide the warranty of three years on the equipment with an authentic certification from the principal company.
34. The participating vendor should be either principal manufacturer or an authorized distributor/dealer of the manufacturer of the equipment with proven after sales support and adequately-trained personnel.
35. The specifications should be authenticated by brochures and company website/catalog. Technical catalogue or brochure of the model must be provided. Instant preparation of the same based on the specifications provided and its onward submission will disqualify the bidder without any further communication.
36. The offered model should be ISO9001 and CE-certified or certified by an internationally recognized quality management system.
37. If the need be, the qualifying bidders may be required to place the demo model of the quoted equipment in the Department In case the vendor is unable to bring a demo unit (on the specified date and time), he/she should arrange for a demo of the unit installed elsewhere in Delhi. In case a visit is arranged, it has to be as per the date and time decided by the technical committee. The technical committee will restrict its visit to Delhi and not NCR. Based on the

efficiency and the results obtained the technical committee may further disqualify the vendors and shortlist the vendors whose financial bid will then be opened.

OTHER INSTRUCTIONS FOR THE BIDDERS

1.	Due date: The tender has to be submitted on-line before the due date. The offers received after the due date and time will not be considered. <u>No manual bids will be considered.</u>
2.	Preparation of Bids: The offer/bid should be submitted in two bid systems (i.e.) Technical bid and Financial bid. The technical bid should consist of all technical details along with commercial terms and conditions. Financial bid should indicate item wise price for the items mentioned in the technical bid in the given format (Annexure V). The Technical bid and the financial bid should be submitted online. <u>The financial bids should be in INR only and should be filled in the excel file as mentioned in the Annexure V.</u>
3.	Opening of the tender: The online bid will be opened by a committee duly constituted for this purpose. Online bids (complete in all respect) will be opened as mentioned in "NIT". The technical bid will be opened online first and it will be examined by a technical committee (as per specification and requirement). Vendors will be shortlisted on the basis of technical bids and may be asked to install a demonstration unit of the quoted model. Technical committee will evaluate the models and take decision on the vendors whose financial bids will be opened.
	Acceptance/ Rejection of bids: The committee reserves the right to reject any or all offers without assigning any reason.
	Pre-qualification criteria: <ol style="list-style-type: none"> 1. Bidders should be the manufacturer/authorized dealer. Letter of Authorization from original equipment manufacturer (OEM) on the same and specific to the tender should be enclosed. 2. An undertaking from the OEM is required stating that they would facilitate the bidder on a regular basis with technology/product updates and extend support for the warranty as well. 3. OEM should be internationally reputed Branded Company. 4. Non-compliance of tender terms, non-submission of required documents, lack of clarity of the specifications, contradiction between bidder specification and supporting documents etc. may lead to rejection of the bid. 5. In the tender, either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender. 6. If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
	Force Majeure: The Supplier shall not be liable for liquidated damages or

	<p>termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.</p> <ol style="list-style-type: none"> 1. For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes. 2. 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 is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
	<p>Risk Purchase Clause: In event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from the other source on the total risk of the supplier under risk purchase clause.</p>
	<p>Delayed delivery: If the delivery is not made within the due date for any reason, the Committee will have the right to impose penalty 1% per week and the maximum deduction is 10% of the contract value/price.</p>
	<p>Prices:</p> <ol style="list-style-type: none"> 1. The price should include all packing and delivery charges. <u>The prices should be quoted only in the excel format as provided in Annexure V.</u> 2. <u>Only INR prices should be quoted by the vendors and offer/bid should be inclusive of all the taxes.</u>
	<p>Performance Bank Guarantee: The vendor, to whom order is placed, shall furnish a performance bank guarantee (issued by a scheduled bank) equaling to 10% of the total cost of the purchase order. The performance guarantee shall remain valid for the entire tenure of warranty period plus additionally for another 60 days.</p>
	<p>Insurance: The insurance should be up to Department of Botany, University of Delhi.</p>
	<p>Delivery and Documents: Delivery of the goods should be made within a maximum of 2 weeks from the date of placement of purchase order. In case the awarded vendor is supplying the instrument through CBW, DU will provide CDEC on furnishing of proper documentation by the vendor. The documents should be received by the purchaser well in advance so that necessary documentation could be completed before arrival of the goods (except where the goods have been delivered directly to the Consignee with all documents) and, if not received, the Supplier will be responsible for any consequent expenses.</p>
	<p>Inspection and Tests: Inspection and tests prior to shipment of Goods and at final acceptance are as follows:</p>

	<ol style="list-style-type: none"> 1. After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier's plant by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications attached to the purchase order. 2. Manufacturer's test certificate with data sheet shall be issued to this effect and submitted along with the delivery documents. The supplier shall inform the purchaser about the site preparation, if any, needed for installation of the goods at the purchaser's site at the time of submission of order acceptance. 3. The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation and ascertaining conformity with the ordered specifications and quality. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified. 4. In the event of the ordered item failing to pass the acceptance test, a period not exceeding one weeks will be given to rectify the defects and clear the acceptance test, failing which the Purchaser reserve the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser. 5. Successful conduct and conclusion of the acceptance test for the installed goods and equipment shall also be the responsibility and at the cost of the Supplier.
	<p>Resolution of Disputes: The dispute resolution mechanism to be applied pursuant shall be as follows:</p> <ol style="list-style-type: none"> 1. In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Vice Chancellor, University of Delhi and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order. 2. In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules

	3. The venue of the arbitration shall be the place from where the order is issued.
	Applicable Law: The place of jurisdiction would be New Delhi (Delhi) INDIA.
	Right to Use Defective Goods If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.
	Supplier Integrity The Supplier is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.
	Installation & Demonstration <ol style="list-style-type: none"> 1. The supplier is required to perform the installation and demonstration of the equipment within one month of the arrival of materials at the site of installation, otherwise the penalty clause will be the same as per the supply of materials. 2. In case of any mishappening/damage to equipment and supplies during the carriage of supplies from the origin of equipment to the installation site, the supplier has to replace it with new equipment/supplies immediately at his own risk. Supplier will settle his claim with the insurance company as per his convenience. Department of Botany, University of Delhi will not be liable to any type of losses in any form.
	Insurance: For delivery of goods at the purchaser's premises, the insurance shall be obtained by the supplier from "warehouse to warehouse" (final destinations) on "All Risks" basis including War Risks and Strikes. The insurances should be up to the installation site at Department of Botany, University of Delhi.
	Warranty: <ol style="list-style-type: none"> 1. Warranty period shall be (as stated in NIT of this tender) from date of installation of Goods at the site of installation i.e., Department of Botany, University of Delhi. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall at its discretion make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests. The warranty should be comprehensive on site. 2. The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall immediately (within 07 days) arrange to repair

	<p>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. The period for correction of defects in the warranty period is 07 days. If the supplier having been notified fails to remedy the defects within 07 days, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expenses and without prejudice to any other rights, which the purchaser may have against the supplier under the contract</p> <p>3. The warranty period should be clearly mentioned. The warranty will commence from the date of the satisfactory installation/commissioning of the equipment against the defect of any manufacturing, workmanship and poor quality of the components.</p>
	<p>Governing Language The contract shall be written in English language. English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the same language.</p>
	<p>Applicable Law The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction.</p>
	<p>Notices Any notice given by one party to the other pursuant to this contract/order shall be sent to the other party in writing or by cable, telex, FAX or e mail and confirmed in writing to the other party's address. A notice shall be effective when delivered or on the notice's effective date, whichever is later.</p>
	<p>Taxes Suppliers shall be entirely responsible for all taxes, license fees, octroi, road permits, etc., incurred until delivery of the contracted goods to the Purchaser. The purchaser will provide CDEC and GST exemption certificates if asked by the vendor and on providing necessary documents.</p>
	<p>Duties University of Delhi is exempted from paying custom duty (partially or full) and necessary "Custom Duty Exemption Certificate" can be issued. Similarly, DU is exempted from paying a higher GST and a GST exemption certificate can be issued on request.</p>
	<p>Payment</p> <ol style="list-style-type: none"> 100% payment shall be made by the Purchaser against delivery, inspection, successful installation, commissioning and acceptance of the equipment at Department of Botany, University of Delhi in good condition and to the entire satisfaction of the Purchaser. All the bank charges within India will be borne by the Institute and outside India will be borne by the Supplier.
	<p>User list: Brochure detailing technical specifications and performance, list of industrial and educational establishments where the items enquired have been supplied must be provided.</p>

	<p>Manuals and Drawings</p> <ol style="list-style-type: none"> 1. Before the goods and equipment are taken over by the Purchaser, the Supplier shall supply operation and maintenance manuals. These shall be in such details as will enable the Purchaser to operate and maintain all parts of the works as stated in the specifications. 2. The Manuals shall be in the ruling language (English) in such form and numbers as stated in the contract.
	<p>Application Specialist: The Tenderer should mention in the Techno-Commercial bid the availability and names of Service Engineers in the nearest regional office.</p>
	<p>Site Preparation:</p> <ol style="list-style-type: none"> 1. The supplier shall inform to the Institute about the site preparation, if any, needed for the installation of equipment, immediately after the receipt of the purchase order. The supplier must provide complete details regarding space and all the other infrastructural requirements needed for the equipment, which the Institute should arrange before the arrival of the equipment to ensure its timely installation and smooth operation thereafter. 2. The supplier shall visit the Institute and see the site where the equipment is to be installed and may offer his advice and render assistance to the Institute in the preparation of the site and other pre-installation requirements.
	<p>Spare Parts</p> <ol style="list-style-type: none"> 1. The Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier: 2. Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract. <p>In the event of termination of production of the spare parts:</p> <ol style="list-style-type: none"> 3. Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and 4. Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested. 5. Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the instrument.
	<p>Defective Equipment: If any of the equipment supplied by the Tenderer is found to be substandard, refurbished, un-merchantable or not in accordance with the description/specification or otherwise faulty, the committee will have the right to reject the equipment or its part. All damaged or unapproved goods shall be returned at suppliers cost and risk and the incidental expenses incurred thereon shall be recovered from the supplier. Defective part in equipment, if found before installation and/or during warranty period, shall be replaced within 45 days on receipt of the intimation from this office at the cost and risk of supplier</p>

	including all other charges. In case supplier fails to replace above item as per above terms & conditions, University of Delhi may consider "banning" the supplier from future participations in the tenders.
	<p>Termination for Default The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:</p> <ol style="list-style-type: none"> 1. If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the order, or within any extension thereof granted by the Purchaser; or 2. If the Supplier fails to perform any other obligation(s) under the Contract. 3. If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract. <p>For the purpose of this Clause:</p> <ol style="list-style-type: none"> 1. Corrupt practice means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. 2. Fraudulent practice means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition; 3. In the event the Purchaser terminates the Contract in whole or in part, the Purchaser may procure, upon such terms and in such manner, as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue the performance of the Contract to the extent not terminated.
	Training of Personnel: The supplier shall be required to undertake to provide the technical training to the personnel involved in the use of the equipment at the premises of installation site, immediately after completing the installation of the equipment for a minimum period of one week at the supplier's cost.
	Disputes and Jurisdiction: Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within New Delhi.
	Compliance certificate: This certificate must be provided indicating conformity to the technical specifications.
	List of Annexures to be submitted by the bidder:

	<p>Annexure I: Compliance Sheet</p> <p>Annexure II: Organization Declaration Sheet</p> <p>Annexure III:List of organizations/clients where the same products have been supplied</p> <p>Annexure IV: Technical documents in support of the technical specifications</p> <p>Annexure V: Format for submission of price bid</p>
--	---

COMPLIANCE SHEET

Indicate the compliance as per the technical specifications mentioned in the tender

S. No.	Technical specifications mentioned in the Tender	Compliance (Y/N)
1.	Total capacity as mentioned in the Technical Specifications	
2.	Complete adherence to technical specifications and terms and conditions.	
3.	3-Year Warranty with the instrument	
4.	3 Kva online UPS	

I have also enclosed all relevant documents in support of my claims (as above) in the following pages

Signature of the Bidder

Name of the Bidder:-----

Designation: -----

Name of the Organization:-----

Contact No.:-----

<<ORGANIZATION LETTER HEAD>>

DECLARATION

We, _____ hereby certify that all the information and data furnished by our organization with regard to this tender specification are true and complete to the best of our knowledge. I have gone through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of specification.

This is certified that our organization has been authorized (Copy attached) by the OEM to participate in Tender. We further certified that our organization meets all the conditions of eligibility criteria laid down in this tender document. Moreover, OEM has agreed to support on regular basis with technology/product updates and extend support for the warranty.

The prices quoted in the financial bids are subsidized due to academic discount given to University of Delhi.

We, further specifically certify that our organization has not been Black Listed/De Listed or put to any Holiday by any Institutional Agency/ Govt. Department/ Public Sector Undertaking in the last three years.	Name and address of the Vendor/Manufacturer/Agent:
Phone	
Fax	
E-mail	
Contact Person	
Mobile Number	
TIN Number	
PAN Number	

Signature of the Tenderer

Name: -----

(Seal of the Company)

List of Government Organizations/Departments

List of Government Organizations for whom the Bidder has undertaken such work during last three years (must be supported with work orders)		
Name of the Organization	Contact Person	Contact Number

Name of application specialist / Service Engineer who have the technical competency to handle and support the quoted product during the warranty period.		
Nature of the Job (Application Specialist/Service Engineer)	Name of the Person	Contact Number

Signature of the Bidder

Name of the Bidder: -----

Designation: -----

Name of the Organization: -----

Contact No.: -----

CHECKLIST OF THE DOCUMENTS REQUIRED FOR ONLINE SUBMISSION

The online bids (complete in all respects) should be submitted in two covers as explained below:

DOCUMENTS IN COVER -I (FOLLOWING DOCUMENTS TO BE LOADED AS A SINGLE PDF FILE)				
S. No.	DOCUMENTS	CONTENTS	FILE TYPE	CHECKLIST (Y/N)
1.	TECHNICAL BID	Compliance Sheet as per Annexure I	A single PDF file for all the documents	
2.		Organization Declaration Sheet as per Annexure II		
3.		List of organizations/ clients where the same products have been supplied (in last two years) along with their contact number(s). (Annexure-III)		
4.		Technical supporting documents in support of all claims made at Annexure-I (Annexure-IV)		
5.		Scanned Copy of Bankers Cheques for Tender Fees and EMD. The originals should be submitted in Lab No. 45 A3, Dept. of Botany before tender opening date		
DOCUMENTS IN COVER -II (FINANCIAL BID TO BE SUBMITTED IN THE FORMAT OF ANNEXURE-V)				
1.	FINANCIAL BID	The Financial Bid should be submitted in the format described in Annexure-V	XLS	