

TENDER Ref. No: MKU/SBS/RUSA/ADNA-1

Corrigendum for the Equipment A1: Supply, Installation, Testing, Commissioning, Validation, and Maintenance of aDNA Clean Room - Class 10000 lab, with electrical panels, and accessories

Last date for Submission of Bids: 5-07-2021 until 3.00 PM

Ref. for Detailed Tender Notification:

https://mkuniversity.ac.in/new/notification_2021/Ancient%20DNA%20SBS%20MKU%20Tender%20aDNA%2014-6-2021.pdf

Corrigendum for the Equipment A1 (based on the Prebid meeting on 24-6-2021) are listed below. All other Tender Conditions and the other Specifications remain same as in the Detailed tender Notification Published.

SECTION-A

1. An Ancient DNA Lab with the following components / broad outline layout:

- Sterile Corridor of ~5 x 24 ft (one side length to be covered) with the access to
- Change room ~5 x 12 ft (10 Pa), followed by
- Air lock of ~8 x 4 ft (10 Pa) - surrounded by the following chambers:
 - a) Bone Drill & Pulverize room ~9 x 14 ft – 30 Pa
 - b) Environmental DNA Lab ~8 x 10 ft – 30 Pa
 - c) DNA extraction Room ~10 x 10 ft – 30 Pa
 - d) Library Prep room ~10x12 ft – 30 Pa

A tentative drawing to indicate the requirements is included in the last page. Bidders must include a clear layout based on site visit, actual measurements in the Technical Bid.

2. i) Sterile Corridor to be of Class 100000, ii) other labs to be class 10000, and iii) the Library prep Lab of Class 1000 as shown in the drawing

4. Air Handling Unit

Double skin unit made out of aluminum profiles with >45 mm PUFF Insulation, 0.6mm pre-coated sheet panel outside and 0.6mm CRCA plane sheet inside

Corner joint piece made of molded nylon, Filter level: 10 µ pre filter, 5µ fine filter.

Motor: ABB/Morathon/Better Motor, base frame vibration isolators rubber pads

Volume Control Damper and FA bottom gravity shutter and mesh Taper

Lock Pulleys and with cooling coil section with 6 Rows,

Stand by motor

Blower: Krugar / Nicotra / Branded make

Not less than 6000 CFM

4. Condensing units

Ductable outdoor units 11 TR + 11TR + 5.5 TR Or any combination to attain not less than

25 TR (also to support as standby)

Make: Daikin / Carrier / Blue star / Reputed Make

5. Refrigeration Piping:

Supply, Installation, Testing and Commissioning of hard drawn refrigeration piping. The brazing to be carried out by bleeding of Nitrogen. The copper pipes to be insulated with 19mm thicker or better nitrile rubber sleeves

13. Volume Control Dampers: Volume control dampers made of GI sheet 150 width – Not less than 10.

15. Supply & Installation of Diffuser & Return Grille – Not less than 20 Nos.

21. View Panel - Double Glazed Tampered Clear 6mm glass with powder coated Aluminium Frame Work and extruded hollow size: 3' x 3' – 6 Nos.

23. Epoxy Flooring: Supply and Applying of Epoxy Flooring - 3 mm thick or better (UV & Bleach resistant)

30. Supply & Fixing of LED Light Lighting in all the chambers with the Make: Wipro / Maximax / Philips / Branded to attain the Lux ~500

37. Temperature: $21-23^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$

38. Relative Humidity: 55-60%: Heater, Humidistat controller / Alternatives to be included

39. Air Changes: ~ 60 ACPH

40. Deleted

SECTION B

1. Modular, wall mounted GI power coated chemical storage racks with glass panels (2 per room: 4+2 rooms) to be installed (UV resistant).
3. Granite Table with under cupboards to the full length (one side) for all the 4 rooms to be provided with the standard arrangement of cupboards and leg space in an alternate manner – 4 Nos. (UV and Bleach resistant) – Also to install with the requirements to mount to the wall.

SECTION – C

1. Required Electrical wiring from Main power supply to AHU, Condensing Units and the internal lines must be provided with the best quality supplies.

Section C; 1-11 (removed the wire lengths):

Required Electrical wiring from Main power supply to AHU, Condensing Units and the internal lines, Switches, DBs, etc must be provided with the best quality supplies.

Proper placement of UV lights with the controls for thorough decontamination - some at ceiling level, some close to floor level to be installed.

10 Nos. x 16 A Power sockets with the required lines to be installed in each of the rooms (4+1

rooms) with the required power lines

13. CCTV Camera: Camera 8 + recording & Monitoring System

23. Uninterrupted Power Supply lines: Power supply lines to be provided in the facility to cater to the extreme essential power requirement for the vitals including all critical components like Door Interlocks, Operation of Isolation Valves, blowers, etc.

23.1 i) A 30 KVA online UPS of Numeric Make with 1 Hr backup to be provided, and ii) a 10 KVA online UPS of Numeric Make with 2Hr backup to be provided. ***(Both under 23.1 To be quoted as optional item with the price)***

25. Validation and airflow checking at least once a year during the warranty period to be done by the supplier

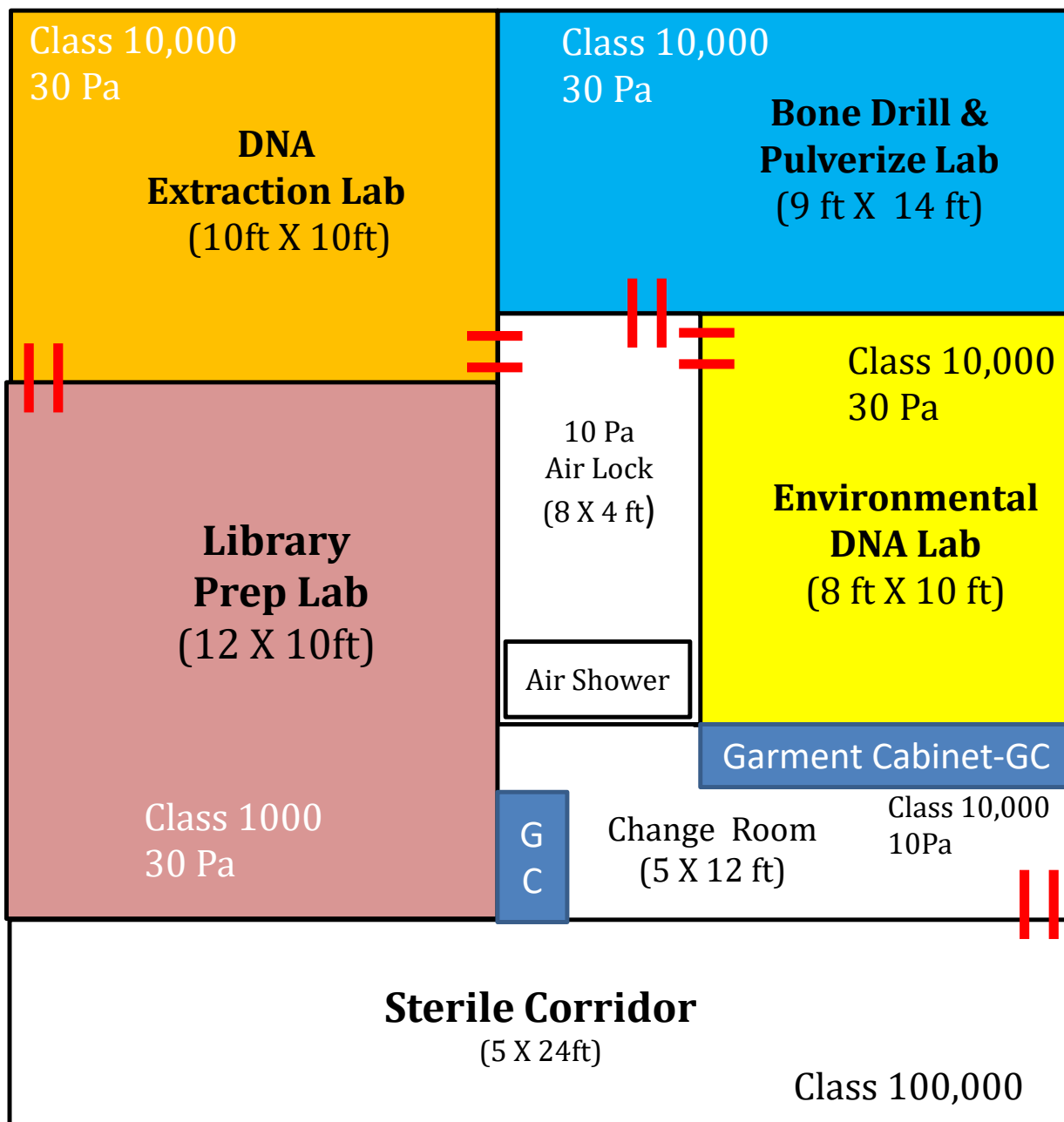
26. Emergency exit / Machine entry door of 1.5m – 1 to be included

Annexure I. 7: Maintenance and service centre facilities / Bidder's office available at Tamil Nadu or At least in one of the Southern States, Bangalore / Hyderabad / Trivandrum with the details of Service Engineers to be provided.

SECTION - D

Optional Item: Costing for i) an additional Exhaust AHU (CFM 3000), and ii) and additional ~5 TR Condensing Unit to be quoted as optional items to support No-Airflow-Recirculation mode airflow to be quoted. This is to make the airflow in i) Bone Drill and ii) Environmental DNA lab to be of 100% fresh all the time without re-circulation. ***It is must to quote for this in the Bid, as additional Optional item.***


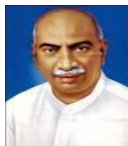
Other than the above listed modifications/expansions, all the other Tender Conditions & specifications in the Tender Notification No. MKU/SBS/RUSA/ADNA-1 Dt. 14.06.2021, remains same without any changes.



MKU-Ancient DNA Lab – Tentative layout

- Outline Layout (Not to the scale), just to indicate the required Labs.
- The bidders are asked make their best possible / better models, based on the site visit and submit with the Technical Bid.
- However, the finalization of the design would be made by the Institute to suit the needs for the project, with the required fine modifications.

DETAILED TENDER NOTIFICATION

	MADURAI KAMARAJ UNIVERSITY <i>(UNIVERSITY WITH POTENTIAL FOR EXCELLENCE)</i> Madurai 625 021, Tamil Nadu. INDIA.	
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Lr. No. MKU/SBS/RUSA/ADNA-1

Date : 14.06.2021

For and on behalf of Madurai Kamaraj University, the sealed tenders **(two-cover system)** are invited by the Registrar, Madurai Kamaraj University, Madurai 625 021, under the Ancient DNA-RUSA scheme, School of Biological Sciences, for the supply and installation of the following items, from the Reputed Suppliers/executors.

No.	ITEM	EMD Amount (1% of the estimate cost)	Period of Contract
A1	Supply, Installation, Testing, Commissioning, Validation, and Maintenance of aDNA Clean Room - Class 10000 lab, with electrical panels, and accessories	55,000	90 days
A2	Supply & Installation of Tape Station	14000	90 days
A3	Supply & Installation of Class II B2 Hood with ducts – 2 Nos	14000	90 Days

Tenders are invited until 3.00 p.m. on 14.06.2021 which will be opened by the Purchase Committee constituted for that purpose by Madurai Kamaraj University at a date and time shown below in the presence of the Tenderers or their agents who choose to be present at the time of opening.

Technical and Commercial bid must be submitted separately and should not be clubbed together.

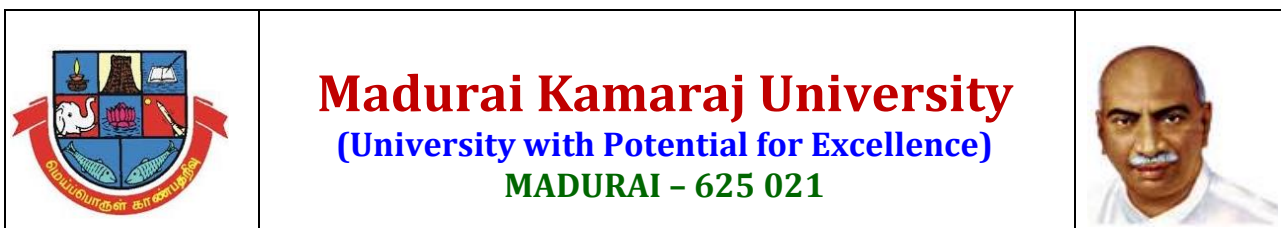
The specifications, terms and conditions are available in the University website www.mkuniversity.ac.in from 14-06-2021. The tender documents are available for downloading at the website.

Printed tender documents can be obtained from aDNA Project Office, School of Biological Sciences, Madurai Kamaraj University upon remitting the fee in the form of DD in favor of Coordinator, Ancient DNA Project, School of Biological Sciences, Madurai Kamaraj University payable at Madurai. The Tender Application Fee of Rs. 2500/- must be paid as DD payable to The Coordinator, Ancient DNA Project, Madurai Kamaraj University, Madurai and must be included along with the technical bid, apart from the cost of EMD. The hard copies of Tender Documents also can be obtained from aDNA Project Office, School of Biological Sciences, Madurai Kamaraj University until 11.30 am of the last date of Tender submission.

REGISTRAR

TENDER SCHEDULE: MKU/SBS/RUSA/ADNA-1 (A1-A3 Equipment)

Tender Announcement Date	14-06-2021
Publication Date on Portal	14-06-2021
Pre-Bid Meeting	24.06.2021, @ 12.00 Noon Online Meeting Link http://meet.google.com/mgr-ttkc-ddi
Last date for Submission	5-07-2021 until 3.00 PM
Tender-Technical Bid Opening	5-07-2021 @ 3.30 PM (Change if any due to unforeseen reasons would be intimated to the bidders)
Price-Bid-Opening	Will be intimated to the qualified bidders



TENDER DOCUMENT

Terms and condition for the Equipments listed in the Tender Notifications **MKU/ RUSA/ SBS/ADNA-1 (EQUIPMENT NO. A1-A3)** for **the Ancient DNA Laboratory, School of Biological Sciences, Madurai Kamaraj University**, Madurai – 625 021, as per Guidelines of Government of Tamil Nadu Tender Transparency Act for the purchase of equipments by Government Departments, Undertakings and Autonomous Bodies [April 1998]

1. DUE DATE AND TIME

Sealed Tenders, in are invited for the Ancient DNA Project, School of Biological Sciences, Madurai Kamaraj University under two cover system from the reputed manufacturing concerns or their regional Agents / Authorized dealers and suppliers for the Equipments listed in the Tender Notifications MKU/ RUSA/ SBS/ADNA-1 (EQUIPMENT NO. A1-A3), as per specifications indicated in the Commercial bid.

The duly filled Tender forms containing the Technical Bid and Commercial Bid should reach **on or before 03.00 p.m of the date specified in the tender schedule**. Tenders received after due date and time will be summarily rejected.

The EMD (approx. 1% of the estimated cost) & The Tender Application Fee of Rs 2500 (A1-A3).

For each equipment, a separate bid with the Tender Fee and EMD must be submitted.

2. MODE OF DESPATCH

Tenders should be addressed / submitted to The Coordinator, Ancient DNA Project, School of Biological Sciences, Madurai Kamaraj University, Madurai – 625 021, by designation and should be only in sealed covers by Registered or Speed Post with Acknowledgement due or in person. Tenders received in ordinary covers without seal will not be considered.

3. SUPERSSCRIPTION

The Tender should be sealed and superscribed as ***“Supply, Installation of _____ (Specify the Equipment No. A1-A3) for School of Biological***

Sciences, Madurai Kamaraj University, due on the date and time specified in the Tender schedule of this document.

The Tender document relating to the Technical Bid duly filled in and signed must be put in sealed cover super scribed as **“Technical Bid”**. The Tender document relating to the Commercial Bid must be duly filled in and signed and must be put in a sealed cover separately, super scribed as **“Commercial Bid”**. The sealed Tender cover containing the Technical Bid **(with EMD & Tender Fee)** and Commercial Bid should be sent to The Coordinator, Ancient DNA Project, School of Biological Sciences, Madurai Kamaraj University Madurai – 625 021. Covers received without such superscription will be summarily rejected.

Two Cover Tender System

Bidders should examine all Instructions, Terms and Conditions and Technical specifications given in the Tender document. Failure to furnish information required by the Bid or submission of Bids not substantially responsive or viable in every respect will be at the Bidders risk and may result in rejection of Bids. Bidders should strictly submit the Bid as specified in the Tender, failing which the bids will be non-responsive and will be rejected. The Tender should be submitted in Two Parts viz Technical Bid and Price Bid as explained below:

Technical Bid Cover

- a) The Technical Bid as per the format given in the Tender document shall be typed, signed and stamped in all pages by the authorized signatory of the Tender. Any alterations, deletions or overwriting shall be attested with full signature of the Authorized signatory of the Tender.
- b) The supporting documents and other documents as given below should be submitted in the Technical Bid.

#	Documents to be Submitted
1.	EMD shall be kept in a separate cover, sealed and superscribed as “EMD cover”
2.	Covering letter in the Bidder’s letterhead shall be enclosed.
3.	Authorization letter in the Bidder’s letterhead from the Managing Director/ Partner / Proprietor or Power of Attorney from the board of Directors of the Bidder company for Authorized Signatory of the Tender Shall be enclosed.
4.	A full set of Tender documents should be printed, signed by the authorized signatory and stamped in all pages as a token of accepting the conditions.
5.	Technical bid should be duly filled & signed by the authorized signatory and stamped in all the pages.

6.	All the supporting documents to establish Bidder's eligibility as required for " Tender Eligibility Criteria " should be signed by the authorized signatory and stamped in all pages and enclosed with Technical Bid.
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- c) The Technical Bid shall not contain any indications of the Price Bid whether directly or indirectly otherwise the Bid will be summarily rejected.
- d) The EMD cover and filled Technical Bid document enclosed with supporting documents should then be put in a separate cover and sealed appropriately. The Technical Bid cover should be superscribed as "*Technical Bid*" with the Tender Ref: MKU/SBS/RUSA/ADNA-1. The "FROM" address and "TO" address should be clearly written in the outer cover.
- f) The technical details submitted by the companies who participated in the tender will not be disclosed to any third party as the disclosure would harm the competitive position, trade secrets and intellectual property rights.

Price Bid Cover

- a) All the price items as per the format given in the Tender document shall be typed, signed and stamped in all the pages by the Authorized Signatory of the Tender. Any alteration, deletions or overwriting shall be attested with full signature of the authorized Signatory. Only a single price should be quoted for each Price Bid item. The Bid is liable for rejection if price Bid contains variation clause or conditional offers or partial offers.
- b) The Price Bid shall be placed in a separate cover and sealed appropriately. The price Bid cover shall be superscribed as "*Price Bid*" with the Tender Ref: MKU/SBS/RUSA/ADNA-1. The "FROM" address and "TO" address shall be written without fail otherwise the price Bid is liable for rejection.

Outer Cover

- a) Both the i) Technical Bid cover enclosed with EMD cover, and ii) Price Bid Cover shall then be put in a single outer cover and sealed appropriately. The outer cover shall be superscribed as "*Tender Application for the Supply & Installation of _____*" – Tender Ref: MKU/SBS/RUSA/ADNA-1. The "FROM" address and "TO" address shall be written without fail otherwise the Technical Bid is liable for rejection.

4. EARNEST MONEY DEPOSIT

Each Tender should be accompanied by i) The Tender Fee & ii) Earnest Money Deposit of E.M.D. (as specified in this document) by Demand Draft drawn in favour of The Coordinator, Ancient DNA Project, Madurai Kamaraj University. The Earnest Money Deposit of any unsuccessful tenderers will be returned after the acceptance of the successful tender, at the expenses of the

Tenderers within a reasonable time consistent with the rules and regulation on this behalf. The above **EARNEST MONEY DEPOSIT** amount held by the University till it is returned to the Tenderers would not earn any interest therefor. Earnest Money Deposit of the successful Tenderer may be adjusted towards security deposit for the successful tenderer.

5. EARNEST MONEY DEPOSIT

Each Tender should be accompanied by i) The Tender Fee & ii) Earnest Money Deposit of E.M.D. (as specified in this document) by Demand Draft drawn in favour of The Coordinator, Ancient DNA Project, Madurai Kamaraj University. The Earnest Money Deposit of any unsuccessful tenderers will be returned after the acceptance of the successful tender, at the expenses of the Tenderers within a reasonable time consistent with the rules and regulation on this behalf. The above **EARNEST MONEY DEPOSIT** amount held by the University till it is returned to the Tenderers would not earn any interest therefor. Earnest Money Deposit of the successful Tenderer may be adjusted towards security deposit for the successful tenderer.

5. ELIGIBILITY CRITERIA

The bidders must fulfill the following Eligibility conditions and also submit documentary evidence in support of fulfilling these conditions while submitting the Technical Bid. The University will consider the Commercial Bid of the vendors who qualify in the Technical bid. For those vendors who are not qualified in the Technical Bid, the Commercial bid will not be considered. **The bidder should submit i) GST, ii) TIN number, iii) Income Tax return details, iv) List of Institutions / Organizations supplied, v) Dealership certificate / Company Profile, etc.**

6. DETAILS TO BE FURNISHED AND MODE OF PRESENTATION

The Tender should contain particulars like name and addresses of the Tenderers, net rate including excise duty, custom duty* (for imported item, clearing and forwarding charges, surcharge, GST, freight, octroi, insurance for delivery, delivering up to the point, installation and commissioning of the equipment and such other levies that may be applicable.

- a. The rates should be kept firm for **Ninety days** from the date of the opening of the Tenders for acceptance.
- b. The rate should be quoted for each item with specification and model if applicable and should be indicated clearly both in words and figures. Any **scoring or overwriting** should be attested by the Tenderer with full signature. The rate quoted should be firm and **should not be subject** to any variation clauses.
- c. The **University shall not pay any increase in duties, taxes and** surcharges on account of any revision by the Government at the time of supply and installation.

- d. Supply of the equipment and other accessories shall be as per the specifications mentioned in the corresponding Appendixes and according to the delivery and installation schedule indicated.

7. OPENING OF TENDERS:

The tenders received upto 03.00 p.m. **on the date specified in the Tender Schedule** will be opened by the Committee constituted by University on the same day at 3.30 PM at SK Hall, School of Biological Sciences, Madurai Kamaraj University OR at an intimated date and time (in unforeseen conditions) in the presence of those Tenderers or their representatives who may be present at the time of opening. The representatives of the Tendering firm who are attending the opening of the Tenders should bring a letter of authority from the Tendering firms which they represent to identify their bonafide.

8. AGREEMENT:

- a. The successful tenderer should execute an agreement for the fulfillment of the contract in the stamp paper in the model form enclosed in Appendix, within fifteen days from the date of acceptance of the tender.
- b. The expenses incidental to the executing of agreement shall be borne by the successful Tenderer.
- c. The conditions stipulated in the agreement form should be strictly adhered to and violation of any of the conditions will entail termination of the contract without prejudice to the rights of the University and recovery of any consequential loss from the successful Tenderer.

9. SECURITY DEPOSIT:

- a. The successful Tenderer will be required to remit the **Security Deposit** equivalent to **Five percent (5%)** of the value of the Purchase order within **fifteen days** from the date of receipt of communication/intimating them of the acceptance of the Tenders. If the accepted Tenderer fails to remit the Security Deposit within the above said period, the Earnest Money Deposit remitted by him will be forfeited to the Madurai Kamaraj University and his Tender will be held void. Purchase order will be released after execution of the above contract by the successful Tenderer and after remitting the Security Deposit by way of Demand Draft / Bankers' cheque / irrevocable bank guarantee drawn in favour of Coordinator, Ancient DNA Project, Madurai Kamaraj University, Madurai – 625 021.

- b. The Security Deposit furnished by the Tenderer in respect of his Tender will be returned to him at the **end of the warranty period** subject to the satisfaction of the University.
- c. In case of successful Tenderer, The Earnest Money Deposit, if paid, may be adjusted towards Security Deposit the Tenderer remitted.
- d. If the Tenderer fails to act according to the Tender or backs out when his Tender is accepted, his Security Deposit mentioned above will be forfeited to the University.

10. SUPPLY AND INSTALLATION

- a. The supply and installation of items and other accessories should be made strictly in accordance with the specifications given in the Commercial Bid and should successfully fulfill the tests carried out by the University. The supply and installation should be as per the delivery schedule to be sent by the University along with the placement of firm orders. The successful Tenderer should give guarantee for a period of **THREE-years** for the items and other accessories installed, against breakage or breakdowns due to manufacturing defects. The guarantee period takes effect from the date of satisfactory installation. The Tenderer shall be liable to make good the loss by replacing the item or other accessories found defective during the guarantee period. The item should be installed in the premises of the University at the cost and risk of the Tenderer.
- b. The material or goods are to be guaranteed for a period of at least three years after installation and commissioning against manufacturing defect and bad workmanship. The warranty period specified, will commence from the date of handing over the item to the University to its satisfaction.
- c. If the supply, installation and commissioning of the systems are not effected before the specified period from the date of purchase order, the University shall have the authority to cancel the order and to take any such action which will be deemed fit in the circumstances.
- d. If any manufacturing or other technical defects are found within the specified months from the date of installation, commissioning and handing over the system to the University Authorities, the same will have to be rectified or replaced free of cost by the supplier.
- e. During the warranty period, if due to manufacturing and other technical defects of the equipment supplied, the system is down and if it is not restored in working condition within 96 hours, the supplier shall be liable for a penalty of one percent per week during breakdown period on the total contract price.

- g. The warranty will cover all the materials and goods supplied by the supplier under this contract irrespective of the fact whether these have been manufactured by the supplier or not.
- h. In case of failure by the Tenderer to deliver goods or materials demanded from them within the period specified for delivery or in case of goods or materials being delivered without a correct invoice in duplicate, the Registrar or anyone duly authorized by him shall have power to reject any such goods or materials so rejected or not delivered unless the supplier shall themselves forthwith supply others that shall be sufficient and satisfactory and any excess of cost so incurred by the Tenderer over the contract price together with all charges and expenses attending the purchase shall be recoverable by the University from the supplier.
- i. The successful Tenderer shall supply licensed versions / models / products. The University will not be held responsible for any consequences arising of patent right problems.

11. PAYMENT OF COSTS:

The terms of payments for purchase of items: The cost of items will be paid on installation, commissioning and handing over of the items after testing and fulfilling the technical specifications. The testing that should be carried out for commissioning the material supplied and the satisfactory installation to be certified by the University.

12. FORFEITURE OF EARNEST MONEY DEPOSIT:

If the accepted Tenderer fails to act according to the tender conditions or backs out after his tender has been accepted, his Earnest Money Deposit will be forfeited to the University.

The successful Tenderer shall not assign or make over the contract, the benefit of burden thereof to any other person or persons or body corporate. He shall not underlet or sublet to any person/s or body corporate for executing the contract or any part thereof.

13. PENALTY FOR NON-FULFILMENT OF TENDER:

Penalty will be levied at the rate of 1% per week on the total contract price if the installation and commissioning has not been completed in full within the stipulated period subject to force majeure conditions. Besides, such performance may entail blacklisting of the supplier.

14. ACCEPTANCE AND WITHDRAWALS:

The final acceptance of the tender is entirely vested with **University which reserves the right to accept or reject** any or all the tender without assigning any reason whatsoever. There is no

obligation on the part of the University to communicate with rejected Tenderers. After acceptance of the tender by the University, the Tenderer shall have no right to withdraw his Tender or claim higher price. Tenders with incomplete information will be summarily rejected.

15. POST WARRANTY:

The post warranty annual maintenance charges (AMC) is applicable for the remaining period after the satisfactory completion of the warranty period offered by the vendor. The annual maintenance charges should be indicated.

The AMC payable from the date of completion of warranty in advance against invoices/bill to be preferred by the vendor. The vendor agrees to provide comprehensive maintenance of the equipment, which shall include preventive maintenance and corrective maintenance at the location specified by the University. The maintenance shall also include replacement of all parts of equipments. The equipment which is down should be restored in good working condition within 48 hours. Otherwise the supplier shall be liable for a penalty of 1% per week of the breakdown period on the total price of the system. The University reserves the right to terminate the maintenance contract in the event of unsatisfactory maintenance and claim damages for non-fulfillment of contract.

16. PENALTY FOR NON-FULFILMENT OF CONDITIONS

The supplier agrees that in the event of non-fulfillment or non-observance of any of the conditions stipulated in the conditions, the Supplier shall pay as penalty an amount equivalent to 10%(ten) percent of total value of equipment or an amount equal to the actual loss incurred by the purchaser whichever is greater. This provision applies up to the end of the life cycle of the equipments (i.e.) even during the post warranty period.

17. EXEMPTION OF CUSTOMS DUTY AND EXISE DUTY

The Madurai Kamaraj University, being a Research oriented higher education institution, is exempted from paying Excise duty and Customs duty / Concessional Customs Duty. The supplier shall therefore obtain Exemption Certificate from the University, issued by the Government of India, before clearing the consignment.

18. TIME-SCHEDULE

Time-schedule is mandatory. Supply should be made within 60 days for any purchase. If not supplied or part only is supplied, then concurrence for purchase from L2 to be got from L1. If no concurrence is given by L1, then notice to be issued and after 15 days L2 is called and negotiated for the supply at L1 rate, or at a lesser price originally quoted by L2. University is vested with the power of modifying the quantity, time and alteration in the specification without hindering the requirements. Those who are agreeable for the above terms should only apply for the tender.

18. GENERAL

The tenderers while sending their tender should enclose a copy of the conditions stipulated duly certified and attested by them in token of accepting the tender conditions that they understood and accepted them in full. Tenders received without the certified copy of the conditions shall be rejected summarily.

I/We _____ have gone through the terms and conditions (Pages 1-18 of Tender Conditions) and will abide by them as laid down in the .

SIGNATURE OF THE TENDERER

WITH OFFICE SEAL

OTHER APPLICABLE CONDITIONS:

1. The quotation must specify the period within which the supply could be effected from the date of receipt firm orders.
2. The prices quoted should clearly specify charges for delivery of the goods to destination indicated overleaf.
3. Sales tax or any other taxes/GST if applicable should be shown separately giving the full rate of taxes for each items giving ex-incidence of such levies.
4. If the rates are under D.G.S. & D. Please specify the same clearly enclosing necessary documents.
5. ***The brochure / leaflets/ catalogue / Diagrams, etc. describing the technical features of the offered item tot be submitted for proper evaluation and would be considered for technical evaluation, in addition to the production of a prototype model of the table .***
6. Dealership certificate on the offered products must be included in case the vendor is a dealer.
7. The vendor must have credential in supplying such system in any institute of national importance and similar organizations
8. Bidder should have valid Service Tax registration number, GST number and meet all legal requirements.
9. Any amendment / corrigendum to the RFP (Request for proposed) document shall be posted on the University Website
10. MKU University reserves the right to call for any other details or information from any of the Bidders. Moreover, the University reserves all rights to reject any bid at any time, at any stage, fully or partly for whole process and / or for particular bidder and also reserves all rights at any time to add, alter, modify, change, edit & delete any condition at any stage. MKU also reserves the right to cancel the entire tender process without assigning any reason. In this regard, the decision of University shall be final and binding on all the participants.
11. University has the rights to cancel any Tender at any stage and in that case, the EMD and other cost paid by the bidder would be refunded.
12. Every page of the RFP document shall be signed by the bidder or by a person duly authorized by the bidder.
13. Bidder shall submit letter of authorization, authorizing the person signing the RFP document on behalf of the bidder.
14. All changes, alterations, corrections in the RFP document shall be signed in full by the person(s) signing the RFP document, with date. No eraser and/or over writing without authentications is/are permissible.

15. The complete RFP document along with the documentary evidence should be numbered.
16. The bidder shall carefully examine and understand the scope of work, specifications/conditions of RFP and seek written clarifications, if required, to ensure that they have understood all scope of work, specifications/conditions of RFP.
17. If the bidder has NSIC certification they will get the NSIC benefits.
18. If the bidder, after submission, revokes his bid or modifies the terms and conditions thereof during the validity of his bid except where the University has given opportunity to do so, the earnest money deposit submitted by Bidder shall, in such case, be forfeited.
19. The successful bidder i.e. Service Provider, within 15 days of receipt of Letter of Intent or within such extended time as may be allowed by University in its discretion, shall submit a Performance Bank Guarantee for an amount equal to 5% of the contract value having validity of 24 months (after Completion of warranty). In case of extension of maintenance contract, the Service Provider shall submit a fresh Bank Guarantee for the Contract value covering the extended period of AMC.

TECHNICAL BID**MADURAI KAMARAJ UNIVERSITY, MADURAI – 625 021****Name of the Equipment:** _____**Profile of the Company (The Company should provide the following details):**

1. Name of the Organization	
2. Nature of the Organization (Govt. / Public / Private / Partnership /Proprietorship)	
3. (a) Address of the Registered Office of the firm with Phone Number, Cell No, Fax and E-mail. (b) Year of Establishment (related to Printers business) (c)SGST & CGST Reg No./GST No. (d) If approved small scale	
4. Annual turnover for the previous three years as on I. General : II. Item listed in tender Document	
5. Location of the factory with address	
6. Maintenance and service centre facilities in Madurai city / other areas and total number of Service Engineers available:	
7. Names of the Government Agencies / Educational Institutions to whom similar items have been supplied in the preceding Three year	
8. Total experience in the related areas	
9. Is your Company an original manufacturer of the item and related items? If yes, state the specific items you Manufacture	

10.What type of maintenance support does your company provide for the pares	
11.What are your conditions for up gradation of items after the warranty period?	
12. In case of breakdown of the item, what will be the mean Downtime? And state whether standby systems will be provided	
13.State the minimum amount of time required to supply the items if your company/ Organization gets the order	
14.State whether you will agree to supply the manuals Drivers for items supplied.	
15. EMD PAYMENT PARTICULARS [The DD should be enclosed in the Technical Bid only]	
(1) Number of Demand Drafts enclosed:	
(2) Demand draft particulars	
Sl.No	Name of the bank and Branch
	DD No. and Date
	Amount Rs.
Total	

Signature:

Name of the Firm
Phone/Mobile No.

COMMERCIAL BID
Madurai Kamaraj University, Madurai – 625 021

Tender Schedule for the

Equipment_____

to Madurai Kamaraj University, Madurai – 625 021

Sl.	Description/Specification	Qty.	Rate Rs.	Total (Inclusive of all Taxes) Rs.
1.				

Warranty Period should be clearly mentioned: Years

1. Please indicate the Annual Maintenance Charges per annum on the basic price of items, excise duty, sales tax, etc., year wise for the remaining period of 5 years life cycle after warranty period.
2. Any other details in support of the above systems you want to furnish.

Signature:

Name of the Firm

PROFILE OF THE BIDDER

1.		Name of the Bidder	
2.	a)	Original Certificate of Incorporation/ Partnership deed (Please give reference number and date along with a copy of the certificate)	
	b)	Fresh Certificate of Incorporation if any (Please give reference number and date along with a copy of the certificate)	
3.	a)	Registered office	
		Address	
		Office Telephone Number	
		Fax Number	
	b)	Contact Person	
		Name	
		Personal Telephone Number	
		Email Address	
4.		Local presence in Tamil Nadu	
	a)	Address	
	b)	Office Telephone Number	
	c)	Fax Number	
5.		Authorized signatory of Tender	
	a)	Name	
	b)	Designation	
	c)	Office address	
	d)	Contact Mobile number	
	e)	Email Address	
6.		Tax Registrations	
	a)	Permanent Account Number (PAN)	
	b)	VAT Registration Number	
	c)	CST Registration Number	
	d)	Service Tax Registration Number	
7.	a)	Name of the Bank	
	b)	Name of the Branch	
	c)	Full address of the Bank Branch	
	d)	Account No.	
	e)	IFCS Code	

Please enclose the necessary supporting documents:

COMPLIANCE TO ELIGIBILITY CRITERIA

#	Eligibility Conditions	Please furnish details & enclose supporting documents
1.	Company Registration details/ Partnership details.	
	Year of Incorporation Please enclose copy of the Certificate of Incorporation/ Partnership deed	
2.	Bidders presence in the business	
	Project description	
	Customer name	
	Work Order or Agreement reference dated on or before 31/5/2021	
	Enclose copy of the Work Order or Agreement on or before 31/5/2021	
3.	Annual turnover for the latest three Audited Financial years	
	Year 2019-20	
	Year 2018-19	
	Year 2017-18	
	Please enclose Annual Report for the above for private limited companies and balance sheet for others. * The Audited Accounts for the recent three years to be furnished.	
4.	Experience of the Bidder in execution of work for education and Research sector.	
	Name of the Customer, Work Order/Agreement reference, Value of Order	
	Geographical coverage (Please give no. of offices)	
	Please enclose copy of the Work Order/Agreements	
	Please enclose copy of project completion or performance certificates	
5.	Bidder's office in Madurai and any other place in Tamil Nadu	

TECHNICAL SPECIFICATIONS FOR THE EQUIPMENTS LISTED IN THE TENDER NOTIFICATIONS

No. A1: Supply, Installation, Testing, Commissioning, Validation, and Maintenance of aDNA Clean Room - Class 10000 with lab panels, electrical panels and accessories

- A1. The bidder is encouraged to visit the site and must include the Layout of the Proposed Ancient DNA Lab and the site visit confirmation document certified by the Coordinator or his nominee, in the Technical Bid.
- A2. The bidder / executor should be in the business for at least 5 years.
- A3. Should have made at least 20 clean rooms including BSL II/III – The list must be provided.
- A4. The firm must be ISO certified company.
- A5. The products need to be CE certified.
- A6. Any vital suggestion in the specifications may be raised on the day of pre-bid meeting

SECTION-A

2. An Ancient DNA Lab with the following components / broad outline layout:
 - Sterile Corridor of ~5 x 24 ft (one side length to be covered) with the access to
 - Lobby of ~8 x 5 ft – 10 Pa
 - Change room ~8x5 ft, followed by – 10 Pa
 - Air lock of ~12x6 ft - surrounded by the following chambers
 - e) DNA extraction Room ~10 x 8 ft – 20 Pa
 - f) Drill & Pulverize room ~12 x 10 ft – 20 Pa
 - g) Library Prep room ~10x10 ft – 30 Pa
 - h) Environmental Genomics Lab ~12 x 10 ft – 20 Pa
3. Class 10,000
4. Air Handling Unit (100% Fresh Air - No Recirculation)

Double skin unit made out of aluminum profiles with 28 mm PUFF Insulation, 0.6mm pre -coated sheet panel outside and 0.6mm CRCA plane sheet inside

Corner joint piece made of molded nylon, Filter level: 10 µ pre filter, 5µ fine filter.

Motor: ABB/Morathon/Better Motor, base frame vibration isolators rubber pads

Volume Control Damper and FA bottom gravity shutter and mesh Taper

Lock Pulleys and with cooling coil section with 6 Rows,

Stand by motor

Blower: Backward curved Krugar / Nicotra / Branded make

3500 CFM
5. Condensing units

Ductable outdoor units 11 TR + 11TR + 5.5 TR = 25 TR

Make: Daikin / Carrier / Blue star / Reputed Make
6. Refrigeration Piping:

Supply, Installation, Testing and Commissioning of hard/soft drawn refrigeration piping. The brazing to

be carried out by bleeding of Nitrogen. The copper pipes to be insulated with 19mm/ 13mm thicker or better nitrile rubber sleeves - ~30 Rmt

7. Drain pipes:

Supply & fixing of drain pipes with necessary fittings and insulation – ~ 15 Rmt

8. Expansion valve & drier: Supply & fixing of expansion valves, driers etc. x 3 Sets

9. Communication Cable: Supply & Laying of communication cables – ~ 45 Rmt

10. Additional gas charging: Additional gas charging to the outdoor units- ~ 35 Kgs

11. Testing & Commissioning: Testing & Commissioning of AHU & ODU systems.

12. GI Ducting:

Supply and installation of ducting made out of 22 /24 gauge or better GI sheet with proper gaskets, supports, angle frames, rods etc. and fabricated as per ISI standards. Insulation material with Nitrile rubber / XLPE material ~ 9 mm and 13 mm thick with one side aluminum foil insulation – ~ 1800 sq. ft.

13. Fire damper: Supply & Fixing of fire dampers made of Al / GI sheets with UL 555 fusible link- 2 Nos.

14. Volume Control Dampers: Volume control dampers made of GI sheet 150 width – 2 Nos.

15. HEPA Module Technical features: 10 Nos

- Cabinet made of GI powder coated
- HEPA Filter 0.3 microns
- Cleanliness level – class 10000 at grill level
- Flow Ratio: Vertical
- Noise level: < ~ 75 db
- HEPA filter Dimension : ~ 610x 610 x 75 mm
- Air flow: 0.45m/s to 0.65 m/s. (88 fpm to 127fpm) or better
- Type : Box type
- Media: imported ultra clean glass fiber paper
- Bottom: Stainless Steel Grill
- Retention: 0.3 micron
- Efficiency :99.97 %

16. Supply & Installation of Diffuser & Return Grille - 10 Nos

17. HVAC Electrical Control Panel for AHU & ODU system

18. Electrical Cable:

Supply & Laying of electrical cables from Control Panel to AHU & etc – ~ 60 Rmt

19. False Ceiling:

Supply and Installation of 50 mm thick double skin wall panel made of 0.5 to 0.6 mm thick or better CRCA with Powder sheets on both sides with PUF/EPS as infill with all accessories. – ~1100 Sq. ft.

20. Clean Room Wall Panel:

Supply and Installation of 100 mm thick or better double skin wall panel made of 0.5 to 0.6 mm thick or better CRCA with powder coated sheets on both sides with PUF/EPS as infill with all accessories – ~2650 sq. ft.

21. Riser Panel : ~ 550 sq. ft

22. View Panel - Double Glazed Clear 6mm glass with powder coated Aluminium Frame Work and extruded hollow size : 5' x 3' – 8 Nos.

23. Magnehelic Gauge: Supply and Installation of magnehelic gauge with box – 8 Nos.
24. Epoxy / Vinyl Flooring :
Supply and Applying of Epoxy / Vinyl Flooring - 3 mm thick or better
 - Seamless joint free finish
 - Anti slip & water washable
 - Chemical resistance
 - Durable & Non particle shedding
 - ~1100 sq. ft.
 - UV resistant
25. Epoxy / PVC Coving and Corner pieces
Epoxy / PVC covings near the inter section of wall to wall & wall to floor & Wall panel to wall panel.in order to avoid dust - ~350 R mt
26. Clean room Doors -GI powder coated :
Supply & Installation of clean room doors GI powder coated, 0.8mm shutter, 40 mm x 1.2 mm thick frame, honeycomb as infill with durable handle, Lock, Door closer, SS push plate, Do Glazed vision panel.
27. Single leaf and durable doors of the sizes 1000 x 2100 mm. – 10 Nos
28. Grille structure with Canopy works:
Providing and fixing of grille structure with canopy arrangement for mounting the AHU & ODU units and for weather protection purposes Size - L ~ 15' x B 12' x H 10'
29. Emergency eye wash (Table Mounting)
30. Plumbing:
Pipe line (CPVC - supply & PVC - Drain) To laboratory sinks, fume hoods & water lines.
 - a) Supply line - 25 mm dia ~250 R ft
 - b) Drain line - 50 mm dia ~250 R ft
31. Supply & Fixing of Cleanroom LED Light
 - 2 by 2 – 12 Nos
 - 1 by 1
 Make: Wipro / Maximax / Philips / Branded – 10 Nos
32. UV lights with appropriate external control (2 per chamber)
33. Static Pass box: GI powder coated construction door, electromagnetic interlocking Inner Size: 20 X 20 X 20" – 1 No.
34. Dynamic Pass box: GI powder coated double door, electromagnetic interlocking, HEPA filtration, SS304 base Inner Size: 20" X 20" X 20" – 1 No.
35. All supplies & materials of UV resistant
36. Clean room Validation – Twice a year for 3 Years
 - a) HEPA filter integrity test (PAO test)
 - b) Room Particle count to check the Cleanliness level as per US Federal Std. 209E
 - c) Air Velocity measurement, Air Changes per Hour of the system & Checking AHU capacity
 - d) Room Positive Pressure
 - e) Temperature & Relative Humidity

35. Design Considerations -10k (ISO -7)
36. Air Filtration - HEPA 0.3 Microns Clean Class - 10000
37. Temperature: 21±5°C
38. Relative Humidity: 55-60%
39. Air Changes: 35-40 ACPH
40. 100% Fresh Air - No Recirculation

SECTION B - LAB FURNISHING

1. Modular, wall mounted Steel chemical storage racks with glass panels in all the rooms (UV resistant Stainless steel -SS 304 as per the following Specifications:
 - Stainless Steel
 - Hinges CED coated (+90°) Handles SS Handles
 - Lock Godrej Cam / Better Lock
 - Wall table Dimension: ~L 6'0" X B 2'0" X H 2'0" ft with - Knee Space – 10 Nos.
2. Garment Cubicle: Steel Powder Coated for storage area – 2 Nos.
3. L type or normal granite / SS Table with under cupboards – 4 Nos.
4. Shoe Rack: Steel Powder Coated Dim: L 3' x B 1'6" x H 3' – 2 Nos.
5. Stool Stainless steel - 304 grade or better – 8 Nos.
6. PP sink with Laboratory tap – 3 Nos.

SECTION – C - Electrical Supplies:

1. Supply & Laying of 2R of 4sqmm 1R 2.5sqmm earthing wire in 1"- ~350 Mtrs
2. Supply & Laying of 2R of 2.5sqmm 1R 1.5sqmm earthing wire ~300 Mtrs
3. Supply & Fixing of 6 & 16A Switch & Socket in 6M Plate with box – 45 set
4. Supply & Fixing of 6A Switch & Socket in 3M Plate with conduit – 20 set
5. Supply & Fixing of 6Way TPN DD DB for UPS, Lightning socket – 2 Nos.
6. Supply & Fixing of 6Way TPN DD DB for Raw power – 1 set
7. 2 Light controlled by 1 no of 6A switch for Raw power & UPSlight Make: Roma / Legrand – 20 sets
8. 1 Light controlled by 1 no of 6A switch Make: Roma / Legrand / Better– 15 set
9. Supply & laying of 100*50mm 1.2mm thick perforated type cabletray with top cover- 45 Mtrs
10. Earthing works – 2 Nos
11. PVC Conduit:
 - Supply & Fixing of PVC conduits – ~35 Mtrs
 - Supply & Laying of Cat 6 Cable in 3/4" pipe Make: D-link – 190 Mtrs
 - Supply & Fixing of Data Socket Make: Roma / Legrand – 20 sets
12. Biometric access
 - Supply & Laying of Cable in 3/4" pipe Make: D-link – 45 Mtrs
 - Biometric Access: Securely standalone finger print biometric access control with RF
13. CCTV Camera
 - Camera 10 + recording & Monitoring System

Hard Disk with 1 TB storage, and a monitor

Supply & Laying of CCTv cable (3+1) laying of pvc pipe – 200 Mtrs

14. Fire alarm System: Fire alarm Detector Make: Honeywell / reputed – 12 Nos.
15. Hooter
16. Manual Call point – 3 Nos.
17. Response indicator– 12 Nos.
18. Supply & Laying of Fire Alarm Cable in 3/4" Pipe – ~ 90 Mtrs
19. Fire alarm Control panel
20. Fire Extinguisher
21. Supply & Installation of CO₂ (4 Kg) fire extinguisher – 3 Nos
22. An operator with the salary of Rs. 15000 per month for 2 years to be provided by the bidder to operate, maintain the facility for 2 years
23. **Uninterrupted Power Supply lines:** Power supply lines to be provided in the facility to cater to the extreme essential power requirement for the vitals including all critical components like Door Interlocks, BMS, Operation of Isolation Valves, blowers, etc. A 30 KVA online UPS of Numeric Make with 1 Hr backup to be provided.
23. Must comply with all the other the needs for the fulfillment of biosafety norms of DBT & ICMR.
- 24. Warranty:** Comprehensive Warranty for the operation and maintenance of the entire facility for THREE years must be included

A2. Supply & Installation of Tape Station

1. High throughput Electrophoresis system for analyzing up to 16 samples or more in a single run for sizing of DNA / RNA.
2. The system must offer individual tips/slots for sample loading to avoid any contamination issues.
3. The system must not use any external/internal Nitrogen / Helium / Gas cylinder for running the Instrument.
4. The system must offer scalable throughput to analyze samples depending on the requirement from a minimum 1 to a maximum of 16 samples or more with a constant running cost.
5. The chips/tapes/plates must be reusable for the remaining slots after loading of few samples.
6. Automatic sample loading provision within the system for reproducible results
7. The system must not use any fragile capillaries for electrophoresis. Instead, rugged chips/tapes/plates must be used.
8. The instrument must offer a dedicated kit for the analysis of genomic DNA / RNA and cf-DNA samples.
9. The system must offer flexibility to analyze DNA and RNA Samples. The kits for DNA & RNA must be sensitive enough to detect pg / μ L concentration.
10. Details of the available kits for DNA, RNA, and cf-DNA must be provided. The Instrument must offer kits and solutions for High Sensitivity DNA, RNA etc.
11. The Genomic DNA kit must offer sizing range from 100 to > 40,000 bp or better with a sensitivity of 10 ng / μ L or better.
12. The RNA kit should provide sizing range from 100-6000 nucleotides or better.
13. The system should have an integrated bar code scanner.
14. The system must offer adequate protection from sample evaporation.
15. The vendor must offer a dedicated kit for High Sensitivity DNA for NGS workflow. The kit must offer sizing in the range of 35 – 1000 bp or better and sensitivity of up to 100 pg / μ L or better.
16. The Instrument software must automatically output analyzed data as gel image / electrophorogram for each sample in a tabular format.
17. The software must offer an option of using an electronic ladder to analyze the samples.
18. The system must be able to accommodate sample volume of 5 μ L or less of precious sample for all applications including High Sensitivity Analysis.
19. The Instrument software must offer a feature for calculating the integrity of RNA and DNA.
20. The list of Installations of the same models in India must be included
21. Comprehensive Warranty for 3 Years must be included

A3. Supply & Installation of CLASS II B2 Cabinet (2 Nos)

1. Cabinet of 4 ft model
2. External Dimension (WxDxH): ~ 1340x811x1460 mm,
3. Internal Work Area, Dimension (WxDxH): ~ 1270x585x670mm
4. Cabinet Construction
 - a) Main Body: ~16 gauge Electrogalvanized steel with isocide white oven-baked epoxy antimicrobial powder coated finish
 - b) Work Zone: ~18 gauge Stainless Steel 304 with no. 4 finish
 - c) Interior work area formed from a single piece of stainless steel with large radius corners to simplify cleaning.
 - d) Drain pan: Stainless Steel, one piece fabricated drain trough with open angles to channel spills to a common drain.
5. Antimicrobial coating on all painted surfaces to protect against surface contamination
6. Front armrest raised above the work zone to improve comfort and to ensure no airflow blockage
7. Negative pressure plenum should surround the work zone
8. 100 % Exhaust
9. Average Air Flow Velocity
 - a. Inflow: Minimum 0.53 m/s (105 fpm), Down flow: 0.33 m/s (65 fpm)
10. Microprocessor Control system displaying all safety information and with selectable quick start mode
11. Should have airflow sensor for monitoring the real-time air flow for safety
12. Supply ULPA filter with efficiency greater than 99.999 % at particle size between 0.1-3 μ for superior operator and product protection
13. Noise level <60 dBA; EN 12469: <56 dBA
14. ISO Class 3 air cleanliness in work zone.
15. Exhaust HEPA filter with efficiency greater than 99.99 % at 0.3 microns
16. Frameless, shatterproof sash for easier cleaning, and for larger, unobstructed viewing area
17. Sash counterbalance shall be suspended on two high-strength cables, and the sash shall lock into position in the event one cable becomes detached.
18. Fluorescent Light Intensity at Zero Ambient > 1000 Lux
19. Accessories: UV Lamp, Electrical Outlet – 2Nos., Support Stand, Service Fitting for gas -2 nos
20. Inside Cabinet Blower motor should be a DC ECM type & Electrical 220-240V, AC, 50Hz,
21. Blower: A High Quality make of centrifugal motor/blowers with external rotor design,
22. The Biological Safety Cabinet should be individually tested, documented by serial number and validated.
23. Standard certification to compliance EN12469, the EN12469 compliance should be mentioned in CE Certificate or relevant document should be attached.
 - a) Biosafety cabinet: EN12469 and CE certified
 - b) Air Quality: ISO 14644.1 Class 3
 - c) Filter performance: IEST-RP-CC034.1, IEST-RP-CC007, IEST-RP-CC001.3, EN 1822(H14).
 - d) Electrical safety: IEC 61010-1, Worldwide, EN 61010-1
24. Ducting must be included with the required accessories. For ducting material must be PVC/FRP Pipe etc. Bidders are encouraged to visit the site & take the measurement –for the ducting.
25. Complete Training on the operation of the equipment and detailed safety procedures to be adapted should be provided to the end user after installation.
26. Must have supplied more than 50 Class II B2 cabinets in India and the list must be included.
27. Comprehensive Warranty for 3 Years must be included.