

**OFFICE OF THE REGISTRAR :: DIBRUGARH UNIVERSITY
DIBRUGARH :: ASSAM
PIN: 786 004**



BID DOCUMENT

FOR

NAME OF THE WORK: Supply, installation and commissioning of Equipments from the NMBP funded Project at Department of Life Sciences, Dibrugarh University.

Re-TENDER No: DU/NIT-2022/File-VII/162 dated 26.12.2022

CUT-OUT SLIP

NAME OF THE WORK: Supply, installation and commissioning of Equipments from the NMBP funded Project at Department of Life Sciences, Dibrugarh University..

Re-TENDER No: DU/NIT-2022/File-VII/162 dated 26.12.2022

SUBMISSION DUE DATE & TIME : 17.01.2023 up-to 11.30 A.M.

FROM:

NAME:
ADDRESS

TO:

THE REGISTRAR
DIBRUGARH UNIVERSITY
DIBRUGARH, ASSAM

(To be pasted on the outer envelope containing "Technical" & "Commercial" bids)



OFFICE OF THE REGISTRAR :: DIBRUGARH UNIVERSITY :: DIBRUGARH

No. DU/ NIT-2022/File-VII/162

Date: 26.12.2022

Re-Tender Notice

Sealed Tenders are invited from reputed manufactures/authorized dealers/suppliers for **Supply, installation and commissioning of Equipments from the NMBP funded Project at Department of Life Sciences, Dibrugarh University..** Detailed specification of the items, terms & conditions etc are given at Part-B. Last date of submission of Tender with all relevant papers is **17.01.2023 up-to 11:30 A.M.** to be submitted at the Office of the Registrar, Dibrugarh University, Dibrugarh, Assam.

Availability of Bid papers	From 26.12.2022
Last date for receipt of Bid	17.01.2023 upto 11.30 A.M.
Time & Date of opening of Bid	17.01.2023 at 02:30 P.M.
Place of opening of Bid	Office of the Registrar, DU
Cost of Tender Document	1000/- Non refundable
EMD	Rs. 50,000.00

The tender should be submitted in two separate sealed envelopes *i.e.* **Part - I TECHNICAL BID** and **Part – II FINANCIAL BID**. The technical bid shall be opened on above mentioned date and time and the financial bid of only those bidders who qualify in technical bid shall be opened on the same date or at a later date which shall be intimated to the tenderer whose technical bid are found to be valid. Dibrugarh University reserves all the rights to reject any or all the tenders without assigning any reason thereof.

Sd/-
Registrar i/c
Dibrugarh University

Copy to:

1. The Chairperson, Tender Opening Committee, D.U. for information.
2. The Deputy Registrar (F&A) i/c, D.U. for information.
3. The Programmer, D.U., with a request to upload the NIT at D.U. website.
4. Office File

Sd/-
Registrar i/c
Dibrugarh University

PART A - TERMS AND CONDITIONS

GENERAL INFORMATION

The tender bids duly complete in all respects, along with the necessary documents should be submitted to the Registrar, Dibrugarh University, Assam. The Technical Bids so received, shall be opened on **17.01.2023 at 02:30 P.M.** in the Office of the Registrar, Dibrugarh University in the presence of the representatives of the bidders. The Financial Bids of the Tenderers shall be opened on the same date or at a later date to be intimated to the Tenderers whose Technical Bids are found to be valid. Right to reject any or all Tenders, without assigning any reason thereof is reserved by Dibrugarh University.

Terms and Conditions of Supply:

1. All the manufacturers/ authorized dealers should also give a brief profile about their company and the facilities available with them of the quoted items. Their turnover and important firms/ Government Institutes/ P.S.U.s etc. to which they are supplying quoted items, should also be mentioned.
2. The last date and time for the submission of the bids is **17.01.2023 up-to 11:30 A.M.**
3. Suppliers shall submit the following documents along with their quotations:
 - i) VAT/TIN/GST Registration No.
 - ii) Technical specifications offered by the Supplier.
 - iii) The bidder must submit a detailed compliance statement clearly mentioning compliance with the specifications mentioned in the NIT document and deviation if any.
 - iv) Technical literature regarding the offered products including pictures/sketch/diagrams etc.
4. The rates should be mentioned in the **FINANCIAL BID** attached with the Tender Document as **ANNEXURE-II**. Each page of the tender shall be signed in full and stamped with the seal by the supplier. The supplier must clearly state in what capacity he/she is signing the Tender.
5. The supplier shall submit the tender in 02 (two) envelopes. The first envelope (Technical Bid) shall contain all the following documents and be sealed.
 - Filled in Format Technical Specifications/Literature
 - Valid copy of Trade License,
 - PAN Card,
 - Registration certificate of GST,
 - Dealership/Manufacturing/Small Scale Industry (SSI) Certificate (if any)
 - The cost of tender of Rs. 1000/- (Rupees one thousand) only which is non-refundable, along with the Earnest Money of Rs. 50,000.00 (Rupees fifty thousand) only in the form of Demand Draft/Bankers Cheque in favour of the Registrar, Dibrugarh University, Assam payable at Dibrugarh University.
 - The Firm(s) who are registered with MSME, National Small Industries Corporation (NSIC) /OR Small Scale Industries (SSI) are exempted to submit the Tender Cost/EMD. However, a copy of registration must be provided along with Technical Bid.
6. Supplier should read carefully all the instructions and terms and conditions, etc before registering rates in prescribed schedule of the tender. Taxes and duties etc. should be shown separately.
7. The Technical Documents shall be opened, at **02:30 P.M. on 17.01.2023** or on the next working day if the offices of the University remain closed due to any reason.
8. Technical specifications of the instruments/equipments are given in **Annexure** to these papers (Part B).

9. The delivery and installation should be completed within 1 month or as specified from placing of the order. No extension shall be granted to the contractors/suppliers for the period of delivery, under any circumstances.
10. If the supplier fails to deliver the article as per the delivery schedule, the University shall be free to procure the balance/undelivered supply, at the risk and cost of the supplier, from other such suppliers.
11. The goods, articles, materials supplied by the supplier shall be accepted after inspection by an officer authorized by the competent authority. No articles/materials which do not conform to the specifications laid down in the terms and conditions or damaged in transit shall be accepted.
12. The bills of the suppliers shall be paid by the University after all the materials/articles/equipments have been received and installed, inspected as above.
13. Vendor must submit Compliance statement in tabular form comparing each specification of the quoted item with that given in the Tender Document **Annexure III**.
14. The tendering firm must provide proof of documents for executing similar works earlier.
15. In the event of any breach of the terms and conditions of the supply, the University may terminate the contract placed with the supplier and forfeit the security deposit of the supplier.
16. Whether OEM or Authorized Distributor/ Dealer a letter or a valid certificate of authorization of manufacturer shall be enclosed.
17. Copy of product literature and catalogue, testing report, BEE rating, ISO etc.
18. The quantity as mentioned at Part-B (Specifications) may be increased or decreased at the time of placing Order as per requirement.
19. Tenderers are advised to study all technical and commercial aspects, instructions, forms, terms and specifications carefully in the tender document. Failure to furnish all information required in the Tender Document or submission of a bid not substantially responsive to the Tender document in every respect will be at the tenderer's risk and may result in the rejection of the bid.
20. This tender document is not transferable.

Note:

- (a) Tenderers are advised to read carefully the Terms and Conditions of supply before recording the rates in this Schedule.
- (b) No erasures or overwriting shall be allowed, unless they are authenticated under the full signature and the seal of the tenderer.
- (c) The University reserves the right to:
 - (i) Accept/reject any/all tenders without assigning any reason thereof.
 - (ii) Revise the quantities at the time of placing the order without change in the rate quoted by the bidder.
 - (iii) Add/modify/relax or waive any of the conditions stipulated in the tender document whenever deemed necessary
 - (iv) Award the contract to one or more tenderers for the items covered by the tender.

ITEM No	DESCRIPTION OF GOODS WITH DETAILS OF SPECIFICATIONS	Unit Price	Taxes	Qty.	Total Amount
1					
2					
3					

Signature of the Tenderer
Seal of the Firm

**Supply, installation and commissioning of Equipments from the NMBP funded Project at
Department of Life Sciences, Dibrugarh University.**

SI No.	Item	Quantity
1.	<p>Name: Fluorometer Specifications:</p> <ul style="list-style-type: none">i. Should be a small benchtop micro-volume fluorometer for quantification of DNA, oligonucleotides, RNA, Proteinsii. Should be an ideal system for measuring accurate concentrations of nucleic acids for downstream applications viz. qRT-PCR, microarray, NGSiii. Minimum sample volume should be 1 µLiv. Pre-saved programs for quantification of dsDNA, oligonucleotides, RNA, microRNA, RNA integrity & quality (intact vs degraded RNA), protein etc.v. System should have limit of detection for dsDNA 0.5 ng/mL to 5 µg/mLvi. System should have a reagent calculator that quickly generates working solution calculationsvii. Light Sources - Blue LED (470 nm) and Red LED (635 nm) along with suitable excitation and emission filter setsviii. Detectors - Photodiodes with a measurement capability of 300-1000 nmix. Dynamic range should be 5 orders of magnitudex. Measurement time should not exceed 5 sec/per samplexi. Should include the assay tubes and kits for quantitative analysis of dsDNA, RNA, RNA- Integrity and Quality (RNA IQ), Proteinxii. Should include USB drive to export data from the system and wifi enabled.xiii. Should be stand-alone system with intuitive touch screen color display for operationxiv. Should be provided with three-year warranty from the date of installation	01 no.
2.	<p>Name: Laboratory Water Purification System Specifications:</p> <ul style="list-style-type: none">i. System should be quoted along the external Pre-treatment and External RO to handle the silica free applications.ii. System should be standalone single/separate stage system- produce Endotoxin and bacteria free ultrapure water Type 1 and Type 2 directly from potable water supply.iii. System should be capable of providing ASTM Type I (18.2 Mega ohm resistivity)Water and have the UF cartridge to cater Biological applicationsiv. System should be capable of providing ASTM Type II (1-10 Mega ohm resistivity)Water from potable tap waterv. System has feed water acceptance level of Conductivity upto 1500 µS/cm or more, Fouling Index (SDI) > 3 and Total Chlorine less than 0.1 ppm or morevi. System should have a pretreatment kit with 1µm filter, Harness Stabilizer and Carbonvii. System should have RO Flow rate 3Ltr/hour or moreviii. Type 1 water flow rate should be equal or more than 1Ltr/Minuteix. Reverse Osmosis module should be made up of thin film composite	1 no.

	<p>polyamide RO membrane with rejection rate of 94 - 99%</p> <ul style="list-style-type: none"> x. System has feed water specific Purification pack before UV lamp consisting of mixed bed ion exchange resin/ micro filter / activated carbon to ensure better purification and longer life of the cartridges. xi. UF should be inbuilt/point of use in system for providing molecular biology grade water xii. System should have dual wavelength 185/254 nm for UV-oxidation for reducing the content of microorganisms and their metabolites to ensure the quality of Type 1 water xiii. System should have external/inbuilt reservoir 5ltr or more in volume. Water is recirculated through High Purity Cartridge to maintain purity of Type 2 water in tank all the time. xiv. Production rate of Purified Water @ 3 ltrs/hr or more xv. System should be quoted with One set of Consumables including RO. xvi. Should have company warranty 	
3.	<p>Name: Real Time PCR System</p> <p>Specifications:</p> <p>The system should be an automated & integrated system for both real-time PCR and post-PCR (end-point) analysis with following features:</p> <ul style="list-style-type: none"> i. The excitation source should be LED/Laser and the detection system should be simultaneous and scan-free for all wells CMOS detection. ii. The system should have temperature range of 37°C - 98°C to facilitate all qPCR applications. iii. The system should have peak block ramp rate for exceeding 6.5°C/second or more, should have temperature uniformity of 0.4°C iv. The system should have 96-well sample block, made up of at least 6 separate independently Peltier-controlled blocks. The maximum temperature difference that can be programmed across the block is 25°C. The maximum difference in temperature allowed between adjacent blocks is 5°C. v. System should support reaction volume minimum of 10 – 100 µL in 0.2ml tube and have more than 5 or 6 color multiplexing without passive reference dye in a single reaction tube. vi. The system should have 6 excitation and emission filter sets to enable collection of up to 21 unique combinations of wavelengths during a single run for multiplexing on the 96-well block instrument. 6 x 6 filters for 21 combinations. New custom dyes can be calibrated with 10-min protocol. System should do 6 different samples simultaneously in a single tube vii. The system should have preferably interactive Touch Screen LCD feature. viii. Fast-PCR in less than 30 minutes should be an integral feature of the system. ix. System should be capable of generating MIQE compliant RDML formatted data along with integrated tools to assist with 21 CFR Part 11 compliance. x. The instrument should have software that can analyze multiple perspectives in the Multiple Plots view, with side-by-side views of all data aspects including the amplification plots, standard curve, multicomponent data plots, and raw data. The system should give heat map of the amplification & analyzed data. Software should have PCR efficiency factor correction for gene quantification. 	1 no.

	<ul style="list-style-type: none"> xi. The system should come along with software to support applications including absolute quantitation, Relative quantitation, multiplex-PCR, allelic discrimination (SNP), melt curve analysis as well as pathogen detection, plus/minus assay using internal positive control & mutation screening. The system should have software available freely on cloud for easy access. System should be supported with remote services, cloud connectivity online monitoring, and external barcode using USB, etc. xii. The system should be completely open system to support all the Real Time PCR chemistry like TaqMan, SYBR Green, Simple & Hydrolysis Probes, and Molecular Beacons etc. xiii. The system should be open system with flexibility to use micro well plates, individual tubes, and 8-tube strips. xiv. System should be sensitive to detect even 1 copy and differences in target quantity as small as 1.5-fold in single plex reactions, also should have 10 logs of linear dynamic range. xv. The system should allow pause function of a run-in progress and during pause user can open or close the block and the system should provide cloud based secure storage of more than 50 GB, analyze, and share data. xvi. System should come with warranty. xvii. Should be provided with 2 KVA UPS with minimum 45 mins backup, branded desktop for data analysis with window-based software package. xviii. The quoted system must have full license for PCR process and attach a list of minimum 30 installations. xix. Vendor is required to give the demo during the technical evaluation if needed. 	
4.	<p>Name: Electronic pipette Specifications:</p> <ul style="list-style-type: none"> i. Volume metric: 1 – 10 µL ii. Increments: 0.01 µL iii. Should have programmable option iv. Compatible tips: 10, 20, 50 micro 	
5.	<p>Name: Balance Specifications:</p> <ul style="list-style-type: none"> i. Capacity minimum up to: 220 g ii. Readability: 0.1 mg [0.0001g] iii. Linearity: ± 0.2 mg iv. Tare Range: Full Capacity [-220 g] v. Repeatability: ± 0.1 mg vi. Pan Size: 100 mm Dia. vii. Minimum weight (U=1%, k=2): 14 mg viii. Minimum weight (USP) : 140 mg ix. Sensitivity Drift: $1 \times 10^{-6} / ^\circ\text{C} \times \text{Rt.}$ or 1 ppm/$^\circ\text{C}$ x. Eccentricity Deviation(test load 100 gm.): 0.12 mg xi. Draft Shield: Manual Draft Shield xii. Weighing Unit: G, kg, ct, lb, oz, ozt, tlb, tlc, tlt, Gn, dwt, mg, /lb, tlc, mom, k tol, bat, and MS. xiii. Weighing Mode : Weighing, Parts Counting, Check weighing, Percent Weighing, Dosing, , Peak hold, Statistics, Animal Weighing, Density, under hook weighing, Autotest, totalizing , Newton Unit Measurement xiv. Calibration: Internal [automatic] xv. Stabilization Time: 2 Seconds xvi. Working Temperature: +10 to +40 $^\circ\text{C}$ xvii. Power Supply: 110 to 230 V AC / 50 to 60 Hz xviii. Display : LCD with Back Light 	

	<ul style="list-style-type: none"> xix. Special Features: xx. Databases: 10 users, 1,000 Products, 1,000,000 weighing records can be stored in memory. xxi. Inter face: 2 × RS 232, USB-A, USB-B xxii. Draft Shield: 3 Side removable Glass draft shields xxiii. GLP/GMP complies: Yes GLP/GMP Complies 	
6.	<p>Name: Mirrorless camera</p> <p>Specifications:</p> <ul style="list-style-type: none"> i. Full frame picture angle ii. Sensor size minimum: 35.9 mm x 23.9 mm iii. Sensor type: CMOS iv. Effective pixel: 24.5 million v. Dual card slot vi. File format: RAW and JPEG vii. Must have eye sensor to automatically switch between monitor and viewfinder displays viii. Should have depth of field control ix. Continuous shooting: Low-speed continuous: 1-5 fps High-speed continuous: 5.5 fps High-speed continuous (extended): 14 fps (14-bit RAW: Approx. 10 fps) x. Shutter speed: 9000 sec. to 1/8000 sec. xi. Exposure: TTL metering, auto Programmed auto with flexible program (P), Shutter-priority auto (S), Aperture-priority auto (A), Manual (M), and 3 user-defined settings xii. ISO Sensitivity: Auto ISO sensitivity control; ISO 100 - 51,200 in steps of 1/3 or 1/2 EV should have options to set to approx. 0.3, 0.5, 0.7 or 1 EV (ISO 50 equivalent) below ISO 100 or to approx. 0.3, 0.5, 0.7, 1 or 2 EV (ISO 204,800 equivalent) above ISO 51,200 xiii. Focus point: 273 (single-point AF) xiv. Movie options: Minimum 4K UHD 3,840x2,160 / 30 fps 4K UHD 3,840x2,160 / 25 fps 4K UHD 3,840x2,160 / 24 fps Full HD 1,920x1,080 / 120 fps Full HD 1,920x1,080 / 100 fps Full HD 1,920x1,080 / 60 fps Full HD 1,920x1,080 / 50 fps Full HD 1,920x1,080 / 30 fps Full HD 1,920x1,080 / 25 fps Full HD 1,920x1,080 / 24 fps Full HD 1,920x1,080 slow-mo / 30 fps x4 Full HD 1,920x1,080 slow-mo / 25 fps x4 Full HD 1,920x1,080 slow-mo / 24 fps x5 xv. Monitor size 8-cm (3.2-in.) with approx. 2100k dot xvi. Connectivity: USB Type C (Super speed), Type C HDMI connector Accessory terminal, Stereo mini-pin jack for audio in and out, Wi-fi connectivity, bluetooth and GPS xvii. Battery should be capable of capturing minimum 400 shots, and minimum 450 shots in energy saving mode xviii. Should have tripod socket, strap, battery charger, and standard company warranty <p>Preferred Brand: Nikon, Cannon or equivalent</p>	1 no.
7.	<p>Name: Lens for item no. (6)</p> <p>Specification:</p> <ul style="list-style-type: none"> i. Focal length: 16-50 mm ii. Aperture range: f/16 to f/3.5-6.3 iii. Should have dual detect optical Vibration reduction lens shift using voice coil motors iv. Should have Autofocus option v. Standard company warranty <p>Preferred Brand: Same Brand as Camera</p>	1 no.

8.	Name: Macro-lens for item no. (6) Specifications: <ul style="list-style-type: none"> i. Focal length: 105 mm ii. Minimum focus distance: 0.29 m iii. Aperture range: f/32 to f/2.8 iv. Full frame format v. Both autofocus and manual modes vi. Standard company warranty Preferred Brand: Same Brand as Camera	1 no.
9.	Name: Flash for item no. (6) Specifications: The light distribution angle should be automatically adjusted to the camera's image area in both FX and DX formats. Standard Even Center-weighted Preferred Brand: Same Brand as Camera	1 no.

N.B.: Firm(s) MUST provide a compliance statement vis-à-vis specifications in a “tabular form” clearly stating the compliance and giving justification, if any supported by technical literature with clear reference of page number, paragraph or lines. This statement must be signed, with the company seal, by the Tendered for its authenticity and acceptance that any incorrect or ambiguous information found submitted will result in disqualification of the Tender.

Signature:

Name :.....

Address :.....

.....

.....

Mobile No.....

Date.....

ANNEXURE-II

To

The Registrar
Dibrugarh University
Dibrugarh

Ref: NIT no.dated.....

Sub: Financial Bid

Sir,

In reference to the NIT cited above, the undersigned would like to submit the Financial Bid as per the unit price, taxes, quantity *etc.*

Item No.	DESCRIPTION OF GOODS WITH DETAILS OF SPECIFICATIONS	Qty.	Per Unit Price (INR)	GST (INR)	Total Amount (INR)
01	Fluorometer	01			
02	Laboratory Water Purification System	01			
03	Real Time PCR System	01			
04	Electronic pipette	01			
05	Balance	01			
06	Mirrorless camera	01			
07	Lens for item no. (6)	01			
08	Macro-lens for item no. (6)	01			
09	Flash for item no. (6)	01			

This is for your kind perusal and acceptance please.

Signature

Seal

Date:

Place:

COMPLIANCE SHEET**Supply, installation and commissioning of Equipments from the NMBP funded Project at
Department of Life Sciences, Dibrugarh University.**

SI No.	Item	Compliance (Complied / Not Complied)
1.	<p>Name: Fluorometer Specifications:</p> <ul style="list-style-type: none"> xv. Should be a small benchtop micro-volume fluorometer for quantification of DNA, oligonucleotides, RNA, Proteins xvi. Should be an ideal system for measuring accurate concentrations of nucleic acids for downstream applications viz. qRT-PCR, microarray, NGS xvii. Minimum sample volume should be 1 µL xxviii. Pre-saved programs for quantification of dsDNA, oligonucleotides, RNA, microRNA, RNA integrity & quality (intact vs degraded RNA), protein etc. xix. System should have limit of detection for dsDNA 0.5 ng/mL to 5 µg/mL xx. System should have a reagent calculator that quickly generates working solution calculations xxi. Light Sources - Blue LED (470 nm) and Red LED (635 nm) along with suitable excitation and emission filter sets xxii. Detectors - Photodiodes with a measurement capability of 300-1000 nm xxiii. Dynamic range should be 5 orders of magnitude xxiv. Measurement time should not exceed 5 sec/per sample xxv. Should include the assay tubes and kits for quantitative analysis of dsDNA, RNA, RNA- Integrity and Quality (RNA IQ), Protein xxvi. Should include USB drive to export data from the system and wifi enabled. xxvii. Should be stand-alone system with intuitive touch screen color display for operation xxviii. Should be provided with three-year warranty from the date of installation 	
2.	<p>Name: Laboratory Water Purification System Specifications:</p> <ul style="list-style-type: none"> xvii. System should be quoted along the external Pre-treatment and External RO to handle the silica free applications. xxviii. System should be standalone single/separate stage system- produce Endotoxin and bacteria free ultrapure water Type 1 and Type 2 directly from potable water supply. xix. System should be capable of providing ASTM Type I (18.2 Mega ohm resistivity)Water and have the UF cartridge to cater Biological applications xx. System should be capable of providing ASTM Type II (1-10 Mega ohm resistivity)Water from potable tap water xxi. System has feed water acceptance level of Conductivity upto 1500 µS/cm or more, Fouling Index (SDI) > 3 and Total Chlorine less than 0.1 ppm or more xxii. System should have a pretreatment kit with 1µm filter, Harness Stabilizer and Carbon xxiii. System should have RO Flow rate 3Ltr/hour or more xxiv. Type 1 water flow rate should be equal or more than 1Ltr/Minute 	

	<ul style="list-style-type: none"> xxv. Reverse Osmosis module should be made up of thin film composite polyamide RO membrane with rejection rate of 94 - 99% xxvi. System has feed water specific Purification pack before UV lamp consisting of mixed bed ion exchange resin/ micro filter / activated carbon to ensure better purification and longer life of the cartridges. xxvii. UF should be inbuilt/point of use in system for providing molecular biology grade water xxviii. System should have dual wavelength 185/254 nm for UV-oxidation for reducing the content of microorganisms and their metabolites to ensure the quality of Type 1 water xxix. System should have external/inbuilt reservoir 5ltr or more in volume. Water is recirculated through High Purity Cartridge to maintain purity of Type 2 water in tank all the time. xxx. Production rate of Purified Water @ 3 ltrs/hr or more xxx. System should be quoted with One set of Consumables including RO. xxxii. Should have company warranty 	
3.	<p>Name: Real Time PCR System</p> <p>Specifications:</p> <p>The system should be an automated & integrated system for both real-time PCR and post-PCR (end-point) analysis with following features:</p> <ul style="list-style-type: none"> xx. The excitation source should be LED/Laser and the detection system should be simultaneous and scan-free for all wells CMOS detection. xxi. The system should have temperature range of 37°C - 98°C to facilitate all qPCR applications. xxii. The system should have peak block ramp rate for exceeding 6.5°C/second or more, should have temperature uniformity of 0.4°C xxiii. The system should have 96-well sample block, made up of at least 6 separate independently Peltier-controlled blocks. The maximum temperature difference that can be programmed across the block is 25°C. The maximum difference in temperature allowed between adjacent blocks is 5°C. xxiv. System should support reaction volume minimum of 10 – 100 µL in 0.2ml tube and have more than 5 or 6 color multiplexing without passive reference dye in a single reaction tube. xxv. The system should have 6 excitation and emission filter sets to enable collection of up to 21 unique combinations of wavelengths during a single run for multiplexing on the 96-well block instrument. 6 x 6 filters for 21 combinations. New custom dyes can be calibrated with 10-min protocol. System should do 6 different samples simultaneously in a single tube xxvi. The system should have preferably interactive Touch Screen LCD feature. xxvii. Fast-PCR in less than 30 minutes should be an integral feature of the system. xxviii. System should be capable of generating MIQE compliant RDML formatted data along with integrated tools to assist with 21 CFR Part 11 compliance. xxix. The instrument should have software that can analyze multiple perspectives in the Multiple Plots view, with side-by-side views of all data aspects including the amplification plots, standard curve, multicomponent data plots, and raw data. The system should give heat map of the amplification & analyzed data. Software should 	

	<p>have PCR efficiency factor correction for gene quantification.</p> <p>xxx. The system should come along with software to support applications including absolute quantitation, Relative quantitation, multiplex-PCR, allelic discrimination (SNP), melt curve analysis as well as pathogen detection, plus/minus assay using internal positive control & mutation screening. The system should have software available freely on cloud for easy access. System should be supported with remote services, cloud connectivity online monitoring, and external barcode using USB, etc.</p> <p>xxxi. The system should be completely open system to support all the Real Time PCR chemistry like TaqMan, SYBR Green, Simple & Hydrolysis Probes, and Molecular Beacons etc.</p> <p>xxxii. The system should be open system with flexibility to use micro well plates, individual tubes, and 8-tube strips.</p> <p>xxxiii. System should be sensitive to detect even 1 copy and differences in target quantity as small as 1.5-fold in single plex reactions, also should have 10 logs of linear dynamic range.</p> <p>xxxiv. The system should allow pause function of a run-in progress and during pause user can open or close the block and the system should provide cloud based secure storage of more than 50 GB, analyze, and share data.</p> <p>xxxv. System should come with warranty.</p> <p>xxxvi. Should be provided with 2 KVA UPS with minimum 45 mins backup, branded desktop for data analysis with window-based software package.</p> <p>xxxvii. The quoted system must have full license for PCR process and attach a list of minimum 30 installations.</p> <p>xxxviii. Vendor is required to give the demo during the technical evaluation if needed.</p>	
4.	<p>Name: Electronic pipette</p> <p>Specifications:</p> <ul style="list-style-type: none"> v. Volume metric: 1 – 10 µL vi. Increments: 0.01 µL vii. Should have programmable option viii. Compatible tips: 10, 20, 50 micro 	
5.	<p>Name: Balance</p> <p>Specifications:</p> <ul style="list-style-type: none"> xxxiv. Capacity minimum up to: 220 g xxxv. Readability: 0.1 mg [0.0001g] xxxvi. Linearity: ± 0.2 mg xxxvii. Tare Range: Full Capacity [-220 g] xxxviii. Repeatability: ± 0.1 mg xxxix. Pan Size: 100 mm Dia. xl. Minimum weight (U=1%, k=2): 14 mg xli. Minimum weight (USP) : 140 mg xliv. Sensitivity Drift: $1 \times 10^{-6} / ^\circ\text{C} \times \text{Rt.}$ or 1 ppm/$^\circ\text{C}$ xlv. Eccentricity Deviation(test load 100 gm.): 0.12 mg xlvii. Draft Shield: Manual Draft Shield xlviii. Weighing Unit: G, kg, ct, lb, oz, ozt, tlh, tls, tlt, Gn, dwt, mg, /lb, tlc, mom, k tol, bat, and MS. xlvix. Weighing Mode : Weighing, Parts Counting, Check weighing, Percent Weighing, Dosing, , Peak hold, Statistics, Animal Weighing, Density, under hook weighing, Autotest, totalizing , Newton Unit Measurement l. Calibration: Internal [automatic] li. Stabilization Time: 2 Seconds liii. Working Temperature: +10 to +40 $^\circ\text{C}$ liv. Power Supply: 110 to 230 V AC / 50 to 60 Hz 	

	<ul style="list-style-type: none"> xli. Display: LCD with Back Light xlii. Special Features: xliii. Databases: 10 users, 1,000 Products, 1,000,000 weighing records can be stored in memory. xliv. Inter face: 2 × RS 232, USB-A, USB-B xlv. Draft Shield: 3 Side removable Glass draft shields xlvi. GLP/GMP complies: Yes GLP/GMP Complies 	
6.	<p>Name: Mirrorless camera</p> <p>Specifications:</p> <ul style="list-style-type: none"> xix. Full frame picture angle xx. Sensor size minimum: 35.9 mm x 23.9 mm xxi. Sensor type: CMOS xxii. Effective pixel: 24.5 million xxiii. Dual card slot xxiv. File format: RAW and JPEG xxv. Must have eye sensor to automatically switch between monitor and viewfinder displays xxvi. Should have depth of field control xxvii. Continuous shooting: Low-speed continuous: 1-5 fps High-speed continuous: 5.5 fps High-speed continuous (extended): 14 fps (14-bit RAW: Approx. 10 fps) xxviii. Shutter speed: 9000 sec. to 1/8000 sec. xxix. Exposure: TTL metering, auto Programmed auto with flexible program (P), Shutter-priority auto (S), Aperture-priority auto (A), Manual (M), and 3 user-defined settings xxx. ISO Sensitivity: Auto ISO sensitivity control; ISO 100 - 51,200 in steps of 1/3 or 1/2 EV should have options to set to approx. 0.3, 0.5, 0.7 or 1 EV (ISO 50 equivalent) below ISO 100 or to approx. 0.3, 0.5, 0.7, 1 or 2 EV (ISO 204,800 equivalent) above ISO 51,200 xxxi. Focus point: 273 (single-point AF) xxxii. Movie options: Minimum 4K UHD 3,840x2,160 / 30 fps 4K UHD 3,840x2,160 / 25 fps 4K UHD 3,840x2,160 / 24 fps Full HD 1,920x1,080 / 120 fps Full HD 1,920x1,080 / 100 fps Full HD 1,920x1,080 / 60 fps Full HD 1,920x1,080 / 50 fps Full HD 1,920x1,080 / 30 fps Full HD 1,920x1,080 / 25 fps Full HD 1,920x1,080 / 24 fps Full HD 1,920x1,080 slow-mo / 30 fps x4 Full HD 1,920x1,080 slow-mo / 25 fps x4 Full HD 1,920x1,080 slow-mo / 24 fps x5 xxxiii. Monitor size 8-cm (3.2-in.) with approx. 2100k dot xxxiv. Connectivity: USB Type C (Super speed), Type C HDMI connector Accessory terminal, Stereo mini-pin jack for audio in and out, Wi-fi connectivity, bluetooth and GPS xxxv. Battery should be capable of capturing minimum 400 shots, and minimum 450 shots in energy saving mode xxxvi. Should have tripod socket, strap, battery charger, and standard company warranty 	
7.	<p>Name: Lens for item no. (6)</p> <p>Specification:</p> <ul style="list-style-type: none"> vi. Focal length: 16-50 mm vii. Aperture range: f/16 to f/3.5-6.3 viii. Should have dual detect optical Vibration reduction lens shift using voice coil motors ix. Should have Autofocus option x. Standard company warranty 	
8.	<p>Name: Macro-lens for item no. (6)</p> <p>Specifications:</p>	

	<ul style="list-style-type: none"> vii. Focal length: 105 mm viii. Minimum focus distance: 0.29 m ix. Aperture range: f/32 to f/2.8 x. Full frame format xi. Both autofocus and manual modes xii. Standard company warranty 	
9.	<p>Name: Flash for item no. (6)</p> <p>Specifications: The light distribution angle should be automatically adjusted to the camera's image area in both FX and DX formats. Standard Even Center-weighted</p>	

Signature

Seal

Date:

Place:

ANNEXURE-V**TECHNICAL BID - CHECK LIST**

Sl. No	Particulars	Mention 'Yes' / 'No'
1.	Whether "Technical Bid" & "Financial Bids" submitted separately and the respective envelopes superscribed properly	
2.	Whether Tender Fee submitted? (if applicable).	
3.	Whether EMD submitted? (if applicable)	
4.	Whether MSME/NSIC/SSI certificate submitted? (in case of seeking Exemption)	
5.	Whether copy of PAN submitted?	
6.	Whether valid Trade License submitted?	
7.	Whether GST regn. Certificate provided?	
8.	Whether dealership/OEM certificate provided?	
9.	Whether detailed compliance sheet submitted?	
10.	Whether technical specification/ Literature provided?	

All above enclosures must be valid (wherever applicable)

Date:

Name & Signature of the tenderer with
seal

Place:

Note: Tenders not accompanied with above information & documents in support of the same may be summarily rejected.