Notice Inviting e-Tender

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Procurement of different medical equipment for COVID 19 testing laboratories of the State of West Bengal.

(Submission of Bid through *online*)

Bid Reference No.: WBMSCL / NIT-49/2020	Dated –19.05.2020

(The following amendment have been made in the tender document and highlighted in yellow colour)

Amendment-II

Revised Technical Specifications

Item No.1: Real Time PCR Machine

1. Real Time PCR System for measuring Real-time amplification of DNA/RNA from purified samples, application include Quantification assays, Qualitative assays, SNP, HRM, Gene Expression, Any published protocol or chemistry should be reproduced.
2. Instrument should be with standalone operation independent of Computer work station.
3. System should have a port for USB Drive for uploading and downloading data and programs.
4. Dedicated Peltier-based Real time Thermal cycling system, 96-well block can accommodates both 96 well PCR plates as well as 8-Tube Strips with clear caps.
5. System should have a temperature accuracy of ±0.2 ºC and well to well Temperature Uniformity of ±0.4 ºC

6. System should have Gradient function for the temperature programmable of 20 ºC gradient range.
7. System should allow Optimum reaction volumes of 5µl to 50µl or more
8. System should have sample ramp rate more than 4 ºC while heating and less than 2.2ºC while cooling.
9. System to provide on line Cycle by Cycle monitoring with continuous display of readings for Fluorescence, Temperature changes and progression of amplification and detection simultaneously on all 96 wells on the plate without any moving parts.
10. RT PCR system should have fiber optics for high accuracy and easy multiplexing on probed assays.
11. System should have individual well to well excitation and emission for better sensitivity for capturing the signals without any edge effects.
12. System should have broad range high-intensity white LED as a excitation source
13. Working Programmable range 37 to 99 ºC, Sensitivity from 1 copy detection and dynamic range of 10 orders of magnitude.
14. System should be compatible with all kind of chemistry Syber green and Hydrolysis probe and compatible with all kind of kits in market. Should be open system for both reagents & disposable plastic consumables.
15. System should use cooled CCD camera for detection without any moving detectors or scanning detectors
16. Instrument filters should be divided based on the wavelength starting from 400 to 700 nm
17. System should have a minimum of eight filters, Four Excitation filters (470/533/577 and 645 nm) and Four Emission filters (514/572/620 and 697 nm) to cover majority of the commercially available dyes
18. Multiplexing capacity: true 4 color multiplex analysis without any passive reference dye.
19. System should be calibrated for Detection Dyes: SYBR, FAM, Reso Light dye, VIC, Hex, Yellow555, Red610, Texas Red, and Cy5. Any new dyes should be used within the filter settings.
20. System should be free of passive reference dye.
21. System should be capable of Simultaneous data acquisition for all positions in 10–1000 ms (dynamic mode)
22. Fast run time, Runtime < 40 min for 3-step 40 cycles PCR
23. Should have preferably 10 inch colored LCD touch Screen display for smooth operation while standalone usage and online fluorescence display.
24. The real time PCR software should allow the user to do the analysis of all type of application like,
    a. Absolute quantitation
    b. Advanced Relative quantitation

c. Multiplex-PCR allelic discrimination (SNP)
d. Tm Calling (Melt curve Analysis – Sybr)
e. Endpoint Genotyping
f. Qualitative Gene detection
g. High Resolution Melting curve analysis (HRM) for mutation studies
h. Pathogen detection and plus/minus assay.

25. Necessary control / QC kits for installation should be supplied along with instruments
26. Software should be compatible with Win 7 to Win 10 with future up gradation
27. RT PCR software should be of multi user installation facility and allow the user to design the experiment or plate layout conveniently..
28. Software should allow to import / export formats like Txt export, Charts: Data and image.
29. System software should support remote access for trouble shooting.
30. Software should have the provision to use barcode scanner and import / export option for plating layout to reduce the time in plating layout.
31. Should provide Equipment user list in India
32. A laptop/ desktop PC with good configuration should be supplied
33. Should guarantee availability of spares and service for minimum 7 Years
34. Certifications: ISO, CE / US FDA or Indian equivalent

Item No.2: Automated RNA isolation platform (96 samples per run)

1. Automated Nucleic Acid extraction systems to efficiently automate DNA extractions, RNA extractions, and their related purification protocols.
2. It should be bench top open system (compatible with multiple kits) along with UPS and with all accessories.
3. Should have automated decontamination system after each run, if technically required.
4. High throughput 96 samples per run should be efficiently extracted within one hour.
5. Should be able to process sample volume min 25µl to 200µl and elution volume 30 to 100µl.
6. Performance should be
   a. High nucleic acid yields
   b. Isolate pure, high quality DNA or RNA for downstream applications such as PCR, qPCR, Reverse transcription – qPCR, sequencing.
7. The system should have heating facility and should allow to add customize protocols.
8. System should function smoothly and should not generate aerosol, splillage.
9. Easy availability of consumables/spares for five years.
10. System should have internal in-built memory to store protocols.

11. Certifications: ISO, CE, or Indian equivalent

Item No. 3: Laminar Flow

1. Size: 4 x 2 x 2 (ft)
2. Inner chamber: SS304; Outer chamber: SS304/ powder coated
3. Air flow: Vertical
4. Air Velocity: between 0.4 to 0.5 m/s ±20%
5. HEPA Efficiency Pre-filter - 99.997% at 0.3 microns with DOP test Washable with an arrestance up to 90% at 5 microns
6. Sound Level - Less than 65 dB (Acoustic)
7. UV light source and visual light source
8. Light Intensity (visual): Lux 900 to 1300 Lux
9. Federal Power Supply: 220 V Single phase 50 Hz
10. Should be CE/US FDA/BIS

Item No. 4: High speed Refrigerated Micro centrifuge

1. Refrigerated Bench top Centrifuge with an aerosol-tight 24 x 1.5/2.0 mL tubes rotor and fixed angle rotor (autoclavable) Provide adapters for 0.6 ml tubes and 0.2 ml tubes
2. Quick Lock rotor lid
3. Speed up to 13,000 rpm or more
4. Separate rpm/rcf converter button
5. Temperature range: 0 °C to +37 °C
6. Maintains constant 4 °C at max. speed
7. Noise level should be low <65 dB(A)
8. Fast pre-cooling of the centrifuge
9. Brushless motor to provide maintenance free drive
10. Acceleration and break time to max rpm of 15 sec. each
11. Certifications: ISO, CE IVD/ US FDA or Indian equivalent
12. Power supply up to 230V/50Hz

Item No. 5: Vertical Autoclave machine

1. Steam Autoclave with Approx. 50 to 75 L capacity
2. The system should be able to maintain sterilization temperature up to 134ºC and Pressure range of 0.1 - 0.4 MPa
3. The system should be microprocessor controlled. It should have set programme for different applications and option for customized programs
4. System should be with LED/LCD display. The system should have Pressure gauge, Steam release option

5. The system including lid should be made up of austenitic stainless steel sheet of SS-304 grade or better.
6. The system should be with double interlock option for better safety.
7. The system should have an inbuilt fan to cool down the chamber
8. Exhaust tank should be with 2 litre or more
9. Accessories: Two compatible stainless steel baskets, one drain hose, one exhaust tank
10. Safety features: Over temperature alarm, water level indicator, pressure safety valve, over temperature/over pressure limiter
11. Should be provided with Class 5 indicator and Biological Indicators
12. Certification: ISO, CE/ US FDA or any Indian equivalent
13. Power supply 220-240 V, 50 Hz

Item No.6: Deep Freezer -20°C Degrees

1. Vertical-type deep freezer with temperature control -20°C and with a capacity of >300 litres
2. Front mounted microprocessor controlled digital temperature display located at convenient height
3. The system should have memory back up. Operation should resume to the set temperature after power off.
4. There should be an option for auto zero calibration through control panel.
5. CFC/HCFC free refrigerant
6. The system should be with heavy duty hermetic type compressor
7. Pull out drawers and with an option of adjustable shelves.
8. Instrument should be with low energy consumption
9. The system should have door with lock facility with an option of putting external lock
10. The system should have defrost option.
11. Safety features: The system should have alarm for High temperature, low temperature, door open, and power failure.
12. Certifications: ISO, CE/ US FDA or Indian equivalent
13. Compatible standard stabilizer
14. Power supply 220-240 V, 50 Hz

Item No. 7: Deep Freezer -80°C Degrees

1. Vertical-type single-door deep freezer with temperature -80°C±10°C and with a capacity of 400 litres, with pad locking system
2. Interior should be stainless steel/coated steel
3. Energy usage should be low.
4. Display – LCD/LED showing temperature with USB port for direct data extraction/

External data logger

5. Memory back up, Operation should resume to set temperature after power off
6. Low noise level =65 db
7. The system should have a vacuum release port for fast reopening of freezers.
8. The system should have vacuum based insulation gasket to avoid temperature leakage
9. The system should have dual compressors to maintain the temperature.
10. Safety features: Temperature alarm; Remote alarm should be provided with the system to monitoring system.
11. Certifications: ISO, CE/ US FDA or Indian equivalent
12. Compatible standard stabilizer (wheel-based) should be provided with the system
13. Power supply 220-240 V, 50 Hz

Item No. 8: Refrigerator

1. Capacity-200 litre or more
2. CFC/HCFC free refrigerant
3. Minimum should have 4 shelves (should be removable if necessary)
4. Temperature range: 2 to 8 ℃
5. The system should have defrost option
6. Power supply 220-240 V, 50 Hz
7. Certifications: ISO, CE/ US FDA or Indian equivalent

Item No. 9: Microfuge (Quick spin):

1. Fixed speed of 6000 rpm/2000 g
2. Two (2) place rotor for 8 x 0.2 ml tube strips
3. Hinged cover lid
4. Power supply 220-240 V, 50 Hz
5. Accessories: One extra rotor for 8 x 0.2 ml tube strips
6. Spare rotor: 24 places rotor for 1.5 ml tube
7. Certifications: ISO, CE/ US FDA or Indian equivalent

Item No. 10: Vortex Mixer

1. Speed Range 0-2500 rpm or more
2. Operating Mode Continuous / Touch
3. Max Load 0.5 kg / 1.1lbs
4. Rubber Platform
5. Power supply 220-240 V, 50 Hz

6. Certifications: ISO, CE/ US FDA or Indian equivalent

Item No. 11: Hot mixture

1. Capable to accommodate PCR tube 1.5 ml & 2.0 ml and PCR plate (0.2 ml having 96 well)
2. Temperature: upto 100 ℃
3. RPM: at least 2000
4. Certifications: ISO, CE/ US FDA or Indian equivalent

Item No. 12: PCR Cooler

1. Mini cooler (-20°C) for 96 places PCR tubes
2. Certifications: ISO, CE/ US FDA or Indian equivalent

Item No. 13: Nuclear free double distilled deionezed water System

1. DNAse free RNAse free system
2. Certifications: ISO, CE/ US FDA or Indian equivalent

Item No. 14: Autoclavable Micropipette (200-1000µl)

Certifications: ISO, IVD, CE/ US FDA or Indian equivalent

Item No. 15: Autoclavable Micropipette (20-200µl)

Certifications: ISO, IVD, CE/ US FDA or Indian equivalent

Item No. 16: Autoclavable Micropipette (2-20µl)

Certifications: ISO, IVD, CE/ US FDA or Indian equivalent

Item No. 17: Autoclavable Micropipette (0.2-2µl)

Certifications: ISO, IVD, CE/ US FDA or Indian equivalent

Amendment-III

Section I: Instructions to Tenderers

A. Important information at a glance

(The item suffixed by "E" in bracket indicates Eligibility Criteria for a bidder)

4. Annual Turnover requirements: (E)

The Tenderers should have annual sales turnover (i.e. total turnover of the company) of minimum on an average of last three financial years (2014-15, 2015-16 & 2016-17) as per the Audited Accounts of the Organization as mentioned in the table below:

ITEM NO.	ITEM	Annual Turnover in Crore Rs.
1	Real Time PCR Machine	2.0
2	Automated nucleic acid extraction system, (RNA Extraction)	
3	Laminar Flow	
4	High speed Refrigerated Centrifuge	
5	Autoclave	
6	– 20° C Freezer	
7	– 80° C Freezer	
8	Refrigerator	
9	Microfuge	
10	Vortex	
11	Hot mixture	
12	PCR Cooler	
13	Water purification system (Nuclear free double distilled deionezed water)	
14	Autoclavable Micropipette (200-1000µl)	
15	Autoclavable Micropipette (20-200µl)	
16	Autoclavable Micropipette (2-20µl)	
17	Autoclavable Micropipette (0.2-2µl)	

Amendment-IV

5 (a) Time for Supplies & Commissioning of work from the date of issuance of Award of Contract

ITEM NO.	ITEM	Time
1	Real Time PCR Machine	80% quantity should be supplied within 7 days and remaining 20% within the next 7 days
2	Automated nucleic acid extraction system, (RNA Extraction)	
3	Laminar Flow	

4	High speed Refrigerated Centrifuge	
5 6	Autoclave – 20° C Freezer	
7	– 80° C Freezer	
8	Refrigerator	
9	Microfuge	
10	Vortex	
11	Hot mixture	
12	PCR Cooler	
13 14	Water purification system (Nuclear free double distilled deionezed water) Autoclavable Micropipette (200-1000µl)	
15	Autoclavable Micropipette (20-200µl)	
16	Autoclavable Micropipette (2-20µl)	
17	Autoclavable Micropipette (0.2-2µl)	

Amendment-V

6. Performance Security (PS)
(In the form of unconditional and irrevocable Bank Guarantee)

Medical equipments for COVID 19 testing purpose
2% of the Bid Value (Validity should be till the completion of Warranty + 60 days).

Amendment-VI

Section I: Instructions to Tenderers

E. Submission and Opening of Bids

30. The following are to be submitted:

(ii) Statutory Documents

(b) BID – B (Should be in multiple page single PDF file)

4	CE ("Conformité Européene") Certificate/ US FDA / BIS (as applicable as per technical specification) and CE IVD (for item no. 4, 14, 15, 16 & 17) CE ("Conformité Européene") Certificate should be from EU Notified Bodies authorized to conduct audits

Comprehensive Maintenance of Equipment

The selected bidder should enter into Comprehensive Maintenance Contract (CMC) after expiry of the 2 Years warranty period, if intended by WBMSCL. The deliverables under the contract is detailed below:

A. Breakdown Calls: as many numbers as may be required to attend to resolve the complaint lodged by the end-users.

B. Preventive Maintenance: The selected bidder should attend periodic planned preventive maintenances in the following manner:

Equipments	Mandatory preventive Maintenance Service (PMS) visit per year in warranty and CMC	Remarks
For all Equipment	2	1. Supplier/ authorised service provider must attend all breakdown calls during warranty / CMC period. 2. The supplier should provide Preventive Maintenance Services (PMS) yearly / bi - yearly / quarterly in equal interval to fulfill the minimum number of mandatory PMS as recommended in the previous column during warranty / CMC period. 3. The procedure / checks of the preventive maintenances should be as per the guidelines prescribed in technical / service / operational manual of the original equipment manufacturer. Preventive Maintenance will also include testing, calibration, replacement of spare parts by new one, hardware / software upgradation and labour.

The cost for Year wise CMC charges after completion of 2 years warranty in percentage of the quoted price of the equipment in the BOQ to be paid to the selected bidder(s) in the manner as detailed in the table below:

ITEM	CMC charges in percentage(%) for Year1	CMC charges in percentage(%) for Year2	CMC charges in percentage(%) for Year3	CMC charges in percentage(%) for Year4	CMC charges in percentage(%) for Year5
Real Time PCR Machine	3	3.25	3.5	3.75	4.0
Automated nucleic acid extraction system, (RNA Extraction)	3	3.25	3.5	3.75	4.0
Laminar Flow	3	3.25	3.5	3.75	4.0
High speed Refrigerated Centrifuge	3	3.25	3.5	3.75	4.0
Autoclave	3	3.25	3.5	3.75	4.0
– 20° C Freezer	3	3.25	3.5	3.75	4.0
– 80° C Freezer	3	3.25	3.5	3.75	4.0
Refrigerator	3	3.25	3.5	3.75	4.0
Microfuge	3	3.25	3.5	3.75	4.0

Vortex	3	3.25	3.5	3.75	4.0
Hot mixture	3	3.25	3.5	3.75	4.0
PCR Cooler	3	3.25	3.5	3.75	4.0
Water purification system (Nuclear free double distilled deionezed water)	3	3.25	3.5	3.75	4.0
Autoclavable Micropipette (200-1000µl)	3	3.25	3.5	3.75	4.0
Autoclavable Micropipette (20-200µl)	3	3.25	3.5	3.75	4.0
Autoclavable Micropipette (2-20µl)	3	3.25	3.5	3.75	4.0
Autoclavable Micropipette (0.2-2µl)	3	3.25	3.5	3.75	4.0

Amendment-VII

General Amendment

1. Bidder should clearly mention in their technical bid about the quantity of the offered equipment / item readily available in ready stock with them and which can be delivered within 7 days as per format given below:

Form: 12

ITEM NO.	ITEM	Tendered Qty	Readily available in ready stock and which can be delivered within 7 days	Remarks, if any
1	Real Time PCR Machine	10		
2	Automated nucleic acid extraction system, (RNA Extraction)	10		
3	Laminar Flow	20		
4	High speed Refrigerated Centrifuge	10		
5	Autoclave	10		
6	– 20° C Freezer	10		
7	– 80° C Freezer	10		
8	Refrigerator	10		
9	Microfuge	20		
10	Vortex	10		
11	Hot mixture	10		

12	PCR Cooler	10		
13	Water purification system (Nuclear free double distilled deionezed water)	10		
14	Autoclavable Micropipette (200-1000µl)	60		
15	Autoclavable Micropipette (20-200µl)	60		
16	Autoclavable Micropipette (2-20µl)	60		
17	Autoclavable Micropipette (0.2-2µl)	20		

The above mentioned format should be uploaded / attach with Bid B of the tender document.

2. If L1 bidder(s) fails to supply the selected equipment / item within the timeline of the tender, TIA may opt for L1 rate matching with L2, L3, L4.....bidders subsequently for the remaining required quantity.

3. TIA may initiate appropriate legal action followed by blacklisting of the L1 bidder as mentioned in the tender, if fail to supply the committed quantity of equipment / item in Form 12 within the stipulated timeline.