सत्यमेव जयते
Goverment Of India

ESTABLISHMENT & STRENGTHENING OF

STATE NCDC BRANCHES

Operational Guidelines for NCDC Branches under PM-ABHIM



National Centre for Disease Control,
22, Sham Nath Marg, Civil Lines, New Delhi – 110054

Background

- National Centre for Disease Control (NCDC) is the nodal agency in the country for disease surveillance facilitating prevention and control of communicable diseases with its headquarters at Delhi. To upgrade and strengthen the public health infrastructure and to deal with certain situations i.e. increase in population, emerging and re-emerging communicable/infectious diseases, natural and other disasters, outbreak/s, epidemic etc., a scheme for 'Establishment & Strengthening of NCDC branches' in 29 states and 1 UT was approved by Standing Finance Committee (SFC) on 24th April 2015 with a mandate to support States/UTs in disease surveillance, outbreak investigation and referral diagnostic services.
- The scheme was continued in SFC 2017 and subsequently in SFC 2021-26.
- Thereafter, Pradhan Mantri - Ayushman Bharat Health Infrastructure Mission (PM-ABHIM) was launched by the Hon'ble Prime Minister on October 2021, with a focus on developing capacities of health systems and institutions across the country to make the health systems capable of responding effectively to current and future pandemics/ disasters.
- National Centre for Disease Control (NCDC), has, inter-alia, been mandated to administer the Central Sector component of PM-ABHIM, namely, "**Strengthening Surveillance of Infectious diseases and Outbreak Response**" which has six components. One of the components under PM-ABHIM is strengthening surveillance through establishment of NCDC State Branches in 30 States/UTs.
- The scheme for 'Establishment & Strengthening of NCDC branches' in 29 states and 1 UT was approved in Standing Finance Committee (SFC) on 24th April 2015 with a mandate to support states in disease surveillance, outbreak investigation and referral diagnostic services. The scheme was continued in SFC 2017 and subsequently in SFC 2021 where it was converged with PM-ABHIM; with the non-recurring components of SFC 2021 being converged and met from the PM-ABHIM, while the recurring components including other expenditure remained in SFC 2021. As per the SFC, the State Government has to provide 2-3 acres of encumbrance and litigation free land, free of cost to NCDC and Central government has to bear expenditures including construction, equipment, manpower and recurring cost.
- These branches will serve the relevant State of location for better disease surveillance, monitoring and response. The branches will be networked with one another, Regional centres, BSL-3 labs and NCDC headquarter. Diagnostic facilities at State level will receive a fillip as BSL- II level facilities will be available in each Branch. The successful implementation of this scheme will make India more capable and equipped in the realm of public health, strengthen public health capacity and infrastructure at State level, benefit the local populace and enable NCDC expertise to effectively cover the entire country.
- Thus, NCDC has been mandated to administer the Pradhan Mantri-Ayushman Bharat Health Infrastructure Mission (PM-ABHIM) for s**trengthening surveillance of infectious diseases and outbreak response through six key components as under:**
  - **Strengthening surveillance through** NCDC State branches in States/ UTs
  - **Establishment of 5 Regional Centers for Disease Control**
  - **Strengthening of Laboratory Network:** Establishment of 10 BSL-3 and 1 BSL-4 laboratory
  - **NCDC Strengthening and Upgradation**
  - **Metropolitan Public Health Surveillance Units (MSU) -**20
  - **Expansion of IHIP-Pan India**

Under the scheme for Establishment & Strengthening of NCDC branches, plan is for:

a) Strengthening of 8 existing branches which are located at Kerala (Kozhikode), Andhra Pradesh (Rajahmundry), Tamil Nadu (Coonoor), Bihar (Patna), Uttar Pradesh (Varanasi), Rajasthan (Alwar), Chhattisgarh (Raipur) and Karnataka (Bengaluru).
b) Establishment of new NCDC Branches in States/UTs.

Objectives

This guideline aims to serve as a ready reckoner for the Officers-in-Charge (OICs) of NCDC branches for their establishment, operationalisation, and management. It aims to provide a comprehensive guide for the operationalization of newly constructed branches of the National Centre for Disease Control (NCDC). It covers the administrative, financial, and technical aspects necessary for the efficient functioning of the branch. This document is intended for use by the Officer-in-Charge (OIC) and relevant stakeholders involved in the management of NCDC branches. It offers a structured approach to ensure each branch is adequately prepared to perform its vital roles in disease surveillance, outbreak investigation, and public health response. Specifically, this guide provides clear instructions for the OICs, ensuring that all essential steps and best practices are adhered to in the establishment and management of NCDC branches.

Purpose and Scope

The purpose of this guideline is to:

- Ensure the seamless operationalization of newly constructed NCDC branches.
- Provide guidelines for administrative, financial, and technical operations.
- Establish standardized procedures to maintain consistency across all branches.

This SOP is applicable to all newly constructed NCDC branches across India.

The scope of activities for each NCDC branch includes:

- **Disease Surveillance**: Continuous monitoring and data collection on the occurrence of diseases within the state or UT.
- **Outbreak Investigation**: Rapid identification and investigation of disease outbreaks to determine their source and implement control measures.
- **Early Warning Systems**: Establishment of systems to detect early signs of potential public health threats.
- **Data Analysis and Reporting**: Utilization of IT and data analytics to analyze disease trends and provide timely reports to relevant authorities.
- **Integrated Entomological Surveillance**: Monitoring and studying the vectors responsible for disease transmission.
- **Public Health Response**: Coordinating and implementing responses to public health emergencies.
- **Inter-Sectoral Coordination**: Collaborating with various sectors to address public health challenges comprehensively.
- **Capacity Building**: Training and development of public health personnel to enhance their skills and capabilities.
- **Referral Diagnostics**: Providing advanced diagnostic services and laboratory support to confirm disease cases.

Organizational Structure of NCDC

The NCDC is under the administrative control of the Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India. The Director, an officer of the Central Health Services, is the administrative and technical head of the Institute and is also Programme Director of Integrated Disease Surveillance Programme (IDSP), National Anti-Microbial Resistance (AMR) Containment Programme, National Rabies Control Programme (NRCP), Programme for Prevention and Control of Leptospirosis (PPCL), Inter-sectoral Coordination Programme for Prevention and Control of Zoonotic Diseases (ISCPCZD) and National Programme on Surveillance of Viral Hepatitis (NPSVH) in different geographical locations.

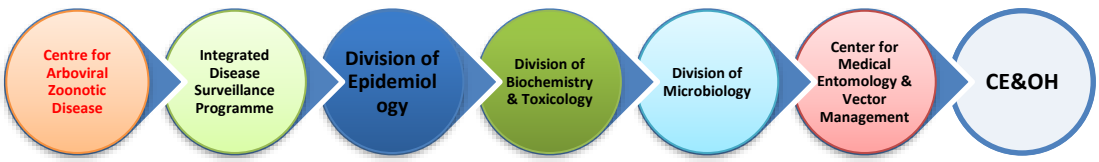
NCDC (HQ - New Delhi) has sanctioned posts of 139 Group A Gazetted (Central Health Services and Non-Medical Scientists), 10 Group B (Gazetted), 167 Group B (Non-Gazetted) and 267 Group C (including 8 existing branches). NCDC has also approved 140 contractual positions.

Organogram of NCDC



Divisions of NCDC





Institutional Committees

The various committees constituted under NCDC are as follows:

1. Departmental Promotion/ Review Committee
2. Quarter Allotment Committee
3. Purchase Committee (Material Supply)-I
4. Purchase Committee (Stationery) –II
5. Goods Receiving Committee
6. Technical Specification and BID Evaluation Committee
7. Equipment Maintenance Committee
8. Tender Opening Committee
9. Transport Committee
10. Library Committee
11. MACP Committee
12. Canteen Committee
13. Committee for Parliament Questions, Assurances, PMO and VIP Reference etc.
14. Building Maintenance & Development Committee
15. Condemnation Committee
16. Sexual Harassment Committee
17. NCDC Web Committee
18. Tender Committee for Housekeeping, Security, Maintenance & Services
19. Scientific Committee of NCDC
20. Vehicle Expenditure Monitoring Committee
21. Biomedical Waste Management Committee
22. Transfer Committee

NCDC Existing Branches

With headquarter at Delhi, NCDC has eight existing branches in Karnataka (Bengaluru), Tamil-Nadu (Coonoor), Andhra Pradesh (Rajahmundry - now Mangalagiri), Kerala (Kozhikode), Uttar-Pradesh (Varanasi), Bihar (Patna), Chhattisgarh (Jagdalpur – now Raipur) and Rajasthan (Alwar – now Jaipur). The branches were set-up, over the years, to deal with specific diseases relevant to the concerned States.

The NCDC branches are also equipped and staffed to carry out field studies, training activities and research.

Proposed Structure of NCDC State Branches:

The SFC approved 22 regular positions per branch and 3 for the NCDC headquarters (Deputy Director-Admin., Assistant Director-Procurement, & Assistant Director-Finance). Subsequently, a meeting was held under the Chairmanship of Secretary (H &FW), dated 20-01-2022 wherein the number of posts per branch was rationalized to 16 posts per NCDC branch and are as under:

S. No	Name of post	Group	Total posts	
			One Branch	30 Branches
1	Assistant Director (Public Health)	A	1	30
2.	Assistant Director (Microbiology)	A	1	30
3.	Assistant Director (Entomology Non-Med)	A	1	30
4.	Research Assistant	B	1	30
5.	Technician	B	3	90
6.	Lab. Assistant	B	3	90
7.	Stenographer Gr. III	C	1	30
8.	UDC	C	1	30
9.	LDCs	C	1	30
10.	Lab. Attendant	C	3	90
		Total	**16**	**480**

NCDC State branches will be headed by nominated Officer-in-Charge (OIC).

Roles and Responsibilities of the Officer-in-Charge (OIC)

3. Administrative Work

3.1. Establishment and Staffing

- **3.1.1. Organizational Structure:** Each branch will be structured with divisions such as State Surveillance, Epidemiology, Microbiology, and Entomology. Ensure the organizational structure aligns with NCDC guidelines.
- **3.1.2. Staffing Requirements:** Appoint staff as per the approved posts, which typically include roles such as Assistant Directors (Public Health, Microbiology, and Entomology), Research Assistants, Technicians, Laboratory Assistants, Accountants, and administrative support staff.
- **3.1.3. On boarding:** Conduct orientation and training programs for new staff to familiarize them with NCDC protocols and procedures.

3.2. Office Setup and Equipment

- **3.2.1. Office Space:** Ensure the office space is adequately set up with necessary furniture, equipment, and infrastructure, including IT systems and internet connectivity.
- **3.2.2. Equipment Procurement:** Follow the procurement guidelines for office equipment, laboratory instruments, and other necessary materials. Ensure the equipment meets the specifications outlined by NCDC.
- **3.2.3. Documentation:** Maintain proper documentation of all administrative activities, including staff records, procurement details, and office maintenance logs.

3.3. Compliance and Reporting

- **3.3.1. Regulatory Compliance:** Ensure all activities comply with NCDC protocols, national health regulations, and local government policies.

- **3.3.2. Reporting:** Regularly report branch activities to the NCDC headquarters and regional offices. Use standardized reporting formats for consistency.

4. Financial Work

4.1. Budgeting and Financial Planning

- **4.1.1. Budget Preparation:** Prepare an annual budget for the branch, covering all operational costs, including salaries, equipment procurement, maintenance, and miscellaneous expenses.
- **4.1.2. Financial Planning:** Develop a financial plan that aligns with the strategic objectives of the branch. Ensure adequate allocation of funds for essential activities.

4.2. Accounting and Auditing

- **4.2.1. Financial Record Keeping:** Maintain accurate financial records, including receipts, invoices, and expense reports. Use approved accounting software for financial management.
- **4.2.2. Internal Audits:** Conduct regular internal audits to ensure financial integrity and transparency. Address any discrepancies promptly.
- **4.2.3. External Audits:** Cooperate with external auditors appointed by NCDC or government authorities. Provide all necessary documentation and support.

4.3. Fund Management

- **4.3.1. Fund Allocation:** Ensure timely disbursement of funds to various departments within the branch. Monitor fund usage to prevent overspending or misuse.
- **4.3.2. Financial Reporting:** Submit monthly and quarterly financial reports to the NCDC headquarters. Include details of income, expenditure, and financial projections.

5. Technical Work

5.1. Disease Surveillance and Outbreak Investigation

- **5.1.1. Surveillance Systems:** Set up disease surveillance systems as per NCDC guidelines. This includes real-time data collection, monitoring, and analysis of disease trends.
- **5.1.2. Outbreak Response:** Establish protocols for rapid outbreak investigation and response. Coordinate with local health authorities and other stakeholders for effective management.

5.2. Laboratory Operations

- **5.2.1. Laboratory Setup:** Ensure the laboratory is equipped with all necessary instruments and meets the biosafety standards. This includes BSL-2 facilities for handling pathogens.
- **5.2.2. Diagnostic Services:** Provide advanced diagnostic services, including microbiology, virology, and bacteriology. Ensure timely processing and accurate reporting of test results.
- **5.2.3. Quality Control:** Implement quality control measures to maintain high standards in laboratory testing. Regularly calibrate equipment and conduct proficiency testing.

5.3. Capacity Building and Training

- **5.3.1. Staff Training:** Organize training programs to enhance the skills of technical staff. Focus on areas such as laboratory techniques, data analysis, and outbreak management.
- **5.3.2. Public Health Education:** Conduct workshops and seminars for local healthcare workers to improve public health awareness and preparedness.

5.4. Technical Reporting

- **5.4.1. Data Reporting:** Regularly report surveillance data, outbreak investigations, and laboratory findings to NCDC headquarters. Ensure data is accurate and timely.
- **5.4.2. Technical Documentation:** Maintain detailed records of all technical activities, including research, training, and public health interventions. Submit these reports as part of the branch's annual review.

6. Review and Monitoring

6.1. Performance Monitoring

- **6.1.1. Regular Reviews:** Conduct monthly and quarterly reviews of all operational aspects, including administrative, financial, and technical work. Identify areas for improvement.
- **6.1.2. Staff Appraisal:** Implement a performance appraisal system to evaluate staff contributions. Recognize and reward outstanding performance.

6.2. Continuous Improvement

- **6.2.1. Feedback Mechanism:** Establish a feedback mechanism for staff to share suggestions and concerns. Use this feedback to refine operational procedures.
- **6.2.2. SOP Revisions:** Review and update this SOP periodically to reflect changes in operational requirements or NCDC guidelines.

The successful operationalization of a newly constructed NCDC branch requires meticulous planning and execution across administrative, financial, and technical domains. Adherence to this guideline will ensure that each branch is well-prepared to fulfil its mandate of disease surveillance, outbreak investigation, and public health response.

This guideline should be used as a living document, adaptable to the specific needs of each NCDC branch while ensuring alignment with the overall objectives of the National Centre for Disease Control.

The list of items to be procured for NCDC State Branches and Regional Centres is as under: -

a. List of Equipment's for NCDC State Branches (Annexure-I)

b. Room-Wise List of Equipment's for NCDC State Branches (Annexure-II)

c. Detailed Technical Specifications of equipment's required at NCDC State branches (Annexure-III)

d. IT Equipment - Technical Specifications (Annexure-IV)

e. Furniture requirements for NCDC branches (Annexure-V)

f. Additional list of equipment for Regional NCDC Branches (Annexure-VI)

Annexure: I

List of Equipment for NCDC State Branches

Sl .No	Name of the equipment	Quantity
1	Analytical Weighing Balance	1
2	Biochemistry Analyser: Fully automated	1
3	Biosafety cabinet –II A-2 type	4
4	BOD incubator (a Entomology and b Serology & Bacteriology)	3
5	Compound Light Microscope	5
6	Deep Freezer – 20° C	1
7	Deep Freezer – 80° C	1
8	Dissection Microscope	2
9	Dry Block Heater	1
10	Electric Sterilizer for Inoculation Loop	1
11	ELISA Reader with Washer	1
12	Fume Hood	1
13	Haematology analyser	1
14	Horizontal Laminar Air Flow	1
15	Hot Air Oven	1
16	Humidifier	1
17	Hygrometer	1
18	Laboratory Refrigerator	9
19	Magnetic Stirrer with Hotplate	1
20	Micro-fuge	4
21	Microwave Oven	1
22	Needle Cutter/Destroyer	1
23	Non Refrigerated Centrifuge	3
24	PCR Workstation	1
25	Penta Head Training Microscope with Visual aids	1
26	pH Meter	2
27	Real time PCR Equipment	1
28	Refrigerated Centrifuge	1
29	VDRL Shaker	1
30	Vertical Autoclave	2
31	Vortex Mixer	4
32	Water Bath	1
33	Water Purification System (for laboratory uses)	1
34	Weighing Machine (For BMW)	1
35	Single Channel Micropipette	
	1-10µl	7

	10-100 µl	7
	100-1000 µl	7
36	Multichannel Micropipette	
	1-10 µl	2
	10-100 µl	2
	100-1000 µl	2
37	Automated Bacterial Identification and Susceptibility Testing System *	1
38	Automatic Blood Culture System*	1

*It is advised to States to procure high-end equipment (listed at S.No. 37 & 38 namely Automated Bacterial Identification and Susceptibility Testing System and Automatic Blood Culture System) in the 2nd phase of procurement only after ensuring the availability of funds, scope and functionality of NCDC branches in their respective States, following installation of other essential equipment.

Annexure: II

Room-Wise List of Equipment for NCDC State Branches

(Guidance for the room-wise placement of equipment)

Sl .No	Name of the equipment	Quantity
Section	Sample collection area	
1	Lab Refrigerator	1
2	Needle Cutter	1
3	Non refrigerated centrifuge	1
Section	Diagnostic Entomology	
4	Lab Refrigerator	1
5	Dissection Microscope	1
6	Compound Light Microscope	1
Section	Vector colony	
7	pH Meter	1
8	Hygro meter	1
9	Dissection Microscope	1
10	Compound Light Microscope	1
11	BOD incubator	1
12	Humidifier	1
Section	Insecticide testing	
13	Fume hood	1
Section	Master mix room	
14	PCR Cabinet	1
15	Microfuge (minicentrifuge / Tabletop Centrifuge)	1
16	Vortex mixer	1
17	Deep Freezer – 20^{0} C	1
18	Single Channel Micropipettes	
	1-10ul	1
	10-100UL	1
	100-1000 ul	1
19	Multi Channel Micropipettes	
	1-10ul	1
	10-100UL	1
	100-1000 ul	1
Section	Template addition and sample extraction	
20	Biosafety cabinet –II A-2 type	1

21	Microfuge (minicentrifuge / Tabletop Centrifuge)	1
22	Vortex mixer	1
23	Lab Refrigerator	1
24	Refrigerated centrifuge	1
25	Dry Block Heater	1
26	Single channel Micropipettes	
	1-10ul	2
	10-100UL	2
	100-1000 ul	2
Section	PCR Room	
27	Real time PCR Equipment	1
Section	BSL-2 labs (2 in number)	
28	Biosafety cabinet –II A-2 type	1 in each
29	Microfuge (minicentrifuge / Tabletop Centrifuge)	1 in each
30	Vortex mixer	1 in each
31	Deep Freezer – 80° C	Only 1
32	Lab Refrigerator	Only 1
33	Single Channel Micropipettes	
	1-10ul	1 in each
	10-100UL	1 in each
	100-1000 ul	1 in each
Section	Serology	
34	Water bath	1
35	ELISA Reader with washer	1
36	Lab Refrigerator	1
37	Incubator BOD	1
38	Non refrigerated centrifuge	1
39	VDRL shaker	1
40	Single channel Micropipettes	
	1-10ul	1
	10-100UL	1
	100-1000 ul	1
41	Multichannel Micropipette	
	1-10ul	1
	10-100UL	1
	100-1000 ul	1
Section	Culture and sensitivity	
42	Compound Light microscope	2
43	Biosafety cabinet –II A-2 type	1

44	Incubator BOD	1
45	Electric Sterilizer for Inoculation Loop	1
46	Lab Refrigerator	2
47	Automatic Blood Culture System (Procurement in 2nd Phase) *	1
48	Automatic System for Identification and sensitivity of bacteria (Procurement in 2nd Phase) *	1
Section	Media Preparation Room	
49	Analytical Weighing balance	1
50	Horizontal Laminar Air Flow Cabinet	1
51	Microwave Oven	1
52	Water Purification system (for laboratory uses)	1
53	Magnetic Stirrer with Hotplate	1
54	Lab Refrigerator	1
55	pH Meter	1
Section	Sterilization	
56	Vertical Autoclave	1
57	Hot air oven	1
Section	Central seminar room	
58	Penta Head Training Microscope with Visual aids	1
59	Compound Light microscope	1
Section	Biomedical Waste (BMW) Room	
60	Vertical Autoclave	1
61	Weighing Machine for BMW room	1
Section	Clinical chemistry and Hematology lab	
62	Lab Refrigerator	1
63	Non-refrigerated centrifuge	1
64	Biochemistry fully Auto mated Analyzer	1
65	Hematology Analyzer	1
66	Single channel Micropipettes	
	1-10ul	1
	10-100uL	1
	100-1000 ul	1

*It is advised to States to procure high-end equipment (listed at S.No. 47 & 48 namely Automated Bacterial Identification and Susceptibility Testing System and Automatic Blood Culture System) in the 2nd phase of procurement only after ensuring the availability of funds, scope and functionality of NCDC branches in their respective States, following installation of other essential equipment.

National Centre for Disease Control (NCDC)
22- Shamnath Marg, Civil Lines, Delhi- 54

Subject: Submission of Technical Specification of equipment required at State NCDC branches.

This is in reference to office order no. 1-1/2024-NCDC-Branches (8291346) dated 28.03.2025. A committee was constituted for finalization of furniture & fixtures and equipment for state NCDC branches and Regional NCDC branches.

2. Committee conducted meetings under the chairpersonship of Dr Aarti Tewari, Joint Director & OIC, CA&ZD, NCDC, Delhi and has finalized the technical specification of 36 equipment required at State NCDC branches. (List of the equipment required at state NCDC branches is enclosed at Annexure: I)

3. Specifications are drafted preferably as per the technical parameters given on GeM portal for the equipment available on GeM as on April-May 2025.

4. The specification of fully Automated biochemistry analyser was prepared by Ms. Deepshikha, RA, NCDC, Delhi & reviewed by Dr Preeti Chauhan, Assistant Professor, Biochemistry department, LHMC, Delhi.

5. The following members attended the meetings and contributed significantly in the drafting of technical specifications –

1. **Dr. Aarti Tewari (Chairperson),** Joint Director & OIC (CA&ZD), NCDC Delhi –
2. **Dr. Shubha Garg,** Joint Director, NCDC Delhi
3. **Dr. Hemlata Lall,** Joint Director, NCDC, Delhi
4. **Dr. Trupti Manohar Shende,** Deputy Director, NCDC Delhi **-Transferred to Nagpur**
5. **Dr. Anupam Kumar Anveshi,** Assistant Director, NCDC, Delhi
6. **Dr. E. Kavitha,** Assistant Director, NCDC, Delhi
7. **Dr. Vikash Ranjan,** Assistant Director, NCDC, Delhi
8. **Dr. Ashna Bhasin,** Assistant Director, NCDC, Delhi
9. **Dr. Iyyappan V,** DAD (Entomology), NCDC, Delhi- Co-opted member from CMEVM
10. **Dr. Ashok Rangaiahagari,** Consultant, NPMU, NCDC, Delhi

General Specifications (To be applicable with all equipment) :

1. Bidders are to submit original manufacturer's product catalogue/ brochure for quoted model in English language. Provided catalogue /brochure should be present on the firm/manufacturer's website. Instant preparation of the desired catalogue or brochure based on the specification provided in the bid document and its onward submission may disqualify the bidder without any further communication.

2. 5 years back-to-back warranty followed by 5 years CAMC to be provided along with free calibration every year during warranty and CAMC wherever applicable.

3. Equipment should be delivered free of cost at site including loading/unloading. Installation, commissioning, testing and configuration which should include training and free of cost IQ, OQ and PQ. Training wherever is applicable as per scope of supply is to be carried out by OEM/OEM certified resource or OEM authorised reseller.

4. At least 3 supply orders of the quoted model of desired equipment, supplied to reputed health institute/hospitals (Central Government/State Government/PSU) in the past 3 years should be provided along with bid.

5. A list of users (containing minimum 3 users) and at least 3 satisfactory installation and satisfactory performance reports (separately) of quoted model from reputed health institute/hospitals (Central Government/State Government/PSU) should be made available.

6. The principal manufacturer must have direct presence/approved service centre in the city of installation of equipment/nearest metro city to the site of installation. They should provide a complete postal address of service centre with contact details including email ID and Toll-Free Number (24X7) and escalation matrix along with the bid.

7. Downtime commitment for providing service is to be restricted to maximum period of 48 hours if the service centre is present in the city of installation and 96 hours if service centres is in the nearest metro city to the site of installation.

8. All electrical peripherals and accessories required for smooth functioning of the equipment eg. Voltage stabilizer and UPS should be provided with the equipment wherever applicable.

9. All electrical supplies should be operable at 230+/- 10V, 50Hz.

10. The equipment should be complied with ISI/ISO/US-FDA/CE standard (mandatory 4 digit notified body number with compliance directive or legislation and tracing link) and other standards as applicable.

11. The manufacture or the dealer must not be blacklisted in any government institute.

12. Failure of submission of desired certificate or report or submission of any forge or counterfeit certificate or report may disqualify the bidder without any further communications.

1. **Analytical Weighing Balance**

(GeM Nomenclature: Micro/Semi-Micro/Analytical Weighing balance)

Group : Type/ Application	
Governing Specification	General Confirming to IS 9281-[Latest]
Intended Application	The products covered in this category are-electronic weighing system/ electronic weighing machine are generally
Scope of Supply	Weighing system consists of Load sensor(EMCF)/Load cells, closed weighing chamber/associated electronic display
Category of weighing Scale	Analytical weighing scale having least count 4 digits after decimal and above
Electronic Display/ Processing unit/ Generic	
Nominal Rated Load Capacity of weighing scale(in gm) [Better capacity is considered higher than the nominal capacity meeting required resolution]	200 gm or more
Resolution	0.1mg
Weighing System Accuracy and Class{As per Governing IS} [Percentage of Rated Output (RO))	+/- 0.1 % of RO (Class 2)
Maximum Measurement Time in second	5-10 sec
Electronic display	LCD/LED display with keypad/touchpad
Sensitivity Drift (10 to 30 degree Celsius)	+/- 2ppm
Safe Overload cell Capacity [Percentage of Rated Load(RL)]	150 % of Rated Load
Ultimate Overload	200 % of Rated Load
Linearity	+/- 3 times of Resolution
Repeatability	+/- 1%
Close weighing chamber type	Glass shield with manual operation
Rigid frame and Weighing Platform/Pan	
Shape	Circular/Square/Rectangular
Nominal Weighing Platform/Pan Size (Diameter/Side, in mm)	80-90mm
Material of Rigid frame	SS
Other features of Rigid frame and Weighing Platform/ Pan	NA
Calibration Certificate	
Calibration Certificate issuing authority (Issuing date should be more than 3 month prior, at the	OEM Certificate NABL/ILAC Approved Agency

time of invoicing)	
Valid Calibration Certificate Provided for Each weighing scale Supplied	Yes
Features	
Connectivity/port	USB/ RS 232/ Ethernet/ Wifi
Operating Temperature Range and humidity	15 to 35°C & upto 90% RH
Power Requirements	Automatic environmental compensation/ levelling assistance/ electable Multi unit display
Power Requirement	Mains operated
Power supply/ Battery Type	230V +/- 10%/Single phase AC
Buyer Specific Requirement	
Software Features	Should provide a user friendly interface to input various process parameters
Installation and commissioning	Yes- provided onsite (at consignee location)
Seller Declared Value	
Link of product / product brochure	Yes
Warranty	
Comprehensive Warranty	≥ 5 Years
TEST REPORT & Certification	
Availability of Test Report from type of Lab, to prove the conformity of product to the specification	OEM NABL Accreditated lab ILAC Accreditated Lab
Agree to provide all relevant documents including supporting document / reports etc, if applicable, to the buyer at the time of bidding or on demand	Yes
Agreed to provide Model approval certificate for each model from Director Legal Metrology at the time bidding or on demand by buyer [Hint: Valid model approval certificate shall be available with the OEM/ Manufacturer/ Seller at the time of product	Yes

2. Biochemistry Analyser: Fully automated (Not available on GeM portal)

SPECIFICATION	TITLE	REQUIREMENT
General	Product Description	Fully Automatic Biochemistry Analyzer
	Purpose	Fully automatic biochemistry analyzer is used in clinical laboratories and healthcare settings to perform a wide range of biochemical tests on biological samples such as blood, serum, plasma, urine, and cerebrospinal fluid
Product Information	System Type	Fully Automated Random Access System
	Type of Biochemistry Analyzer	Floor Model Type
	Sample Type	Serum, Plasma, Urine, CSF, Any body fluid samples
	Assay Type	End point, Rate, Kinetic Turbidometric and Bi chromatic Assay
	Throughput tests / hour Photometric Tests with ISE module	600 or more
	Throughput tests/hour Photometric Tests without ISE Module	350 or more
	Calibration Facility	Factor, Linear (one, two and multi-point),Exponential, Logit-Log, Spline, Non-Linear
	Equipment must have self-diagnostic tests with error message and online display	Yes
	Equipment must be programmable for all test menus and state of the art work station should be up-gradable by addition of ISE module	Yes
	Sample loading type	Sample Tray
	Equipment should have both internal and external probe cleaning/washing capacity	Yes
	Repeat facility to be available for calibrator and control	Yes
	Reagent refill message and monitoring facility	Yes

	Minimum number of test parameters on board at a time	≥ 30
	Minimum sample capacity at a time	35 to 49
	Minimum number of STAT samples at a time	≥ 10
	Should have pre post and auto dilution of samples and return capability for out of range samples	Yes
	Probe dispensers	Probe dispensers must have level detectors and must typically use between 2-25 µl of sample
	Spectral range in nm	340 to 800 nm
	Wave length selection method	Interference Filter (With minimum 8 interference filter)
	Light source	Halogen lamp low cost with long life
	Life of lamp in hrs	≥ 1000
	Power consumption of lamp in VA	≤ 1000
	Type of sample cups	Reusable/Primary tubes
	Number of sample cups provided with machine	1000
	QC program	QC Programme with L-J graphs, Print out of reports
	Reaction Cuvette	Reusable
	System should have on board cooling system	Refrigerated
	DI water plant for the washing of the cuvettes to avoid carry over and contamination	Yes
	Compatible on line UPS	Yes
	Back up time	1 hour
	Data management software	Equipment to be provided with compatible programmable windows based comprehensive data processing and management system graphical user interface software, LM Capability complete back up of data base for calibration control and patient sample results,

		capability for Bi-directional interfacing with LIS
	Patient result storage capacity	15000
	Onboard cuvette washing & drying facility	Yes
	Photometric Checking of cuvettes before next reaction - Create Another field	Yes
	System should have facility for reading results on monitor and print out facility	Yes
	Reagents to be provided with machine	Creatinine, Urea, Uric Acid, Triglycerides, Glucose, Cholesterol, Total Protein, Calcium, Albumin, SGOT, SGPT, Alkaline Phosphatase, Bilirubin (Total & Direct), Calibrator, Control (Normal),Control (Abnormal)
	Quantity of Reagents provided (Number of Tests)	50 Tests or more
	Reports	Printout of reports and full patient demographics to be available
	System to be provided with necessary pre requisites and start up kits normal and abnormal QC and calibrators	Yes
	Availability of RS 232 port/USB for data transfer	Yes
	Power supply	200-240V AC, 50Hz Single phase
	Reagents position	50 or more
	Bar code reader for reagents	Yes
	Bar code reader for samples	Yes
	Refrigerator provided with Analyzer	No
	Capacity of Refrigerator (Litres)	NA
	Type of Micro pipette provided	Not provided
	Variable Micro pipette provided	No
	Seller must provide original documentary proof of the date and place of manufacturing of provided equipment	Yes
	Service manual and operating manual to be provided	Yes

	System shall be provided with a compatible desktop PC	Yes
	Speed of processor in GHZ	Greater than 3 GHZ
	RAM in MB	≥ 512 MB
	Hard disk drive capacity in GB	≥ 80 GB
	Monitor	TFT/LCD/LED/ Digital colour monitor
	Monitor size (inches)	17 inches or more
	Compatible operating system provided in PC	Yes
	Printer provided	Yes
	Type of printer	Laser Printer
	The unit shall be capable of operating continuously in ambient temperature and relative humidity	Temp of 10° to 40° C and humidity of 15 to 90%
	Start up kit, Calibrators, consumables required in training the staff/Technician/Doctors should be provided at the time of installation &Training	Yes
	The reaction cuvettes should be replaced at free of cost whenever required during the warranty period	No
Certifications and Reports	Compliance to Medical Device Rules (MDR) 2017 as amended till date	Yes
	Availability of valid Drug/medical device license for the product issued from the competent authority defined under Drugs and Cosmetic Act 1940 and Rules made there under as amended till date	Yes
	Valid Drug/Medical Device License Number	YES
	Manufacturing unit certification	ISO:13485 (Latest)
	Additional voluntary certification available	YES
	Availability of Test Report for product as per Medical Device Rules (MDR) 2017 as amended till date	Yes
	Electrical Safety Standards	IEC/EN 60601-1 or equivalent BIS Standard
	Submission of all necessary certifications, licenses and test reports to the buyer at the time of bid submission and/or along with supplies as per buyer requirement	Yes

Warranty	Warranty in years (including machine, DI Water Plant if provided , UPS, computer and printer)	≥ 5 Years
Miscellaneous Requirements	OEM/Reseller shall ensure uninterrupted availability of all spares for 10 years	Yes
	Availability of toll free facility for technical support maintained by OEM or authorized agencies	Yes
	User/Technical/Maintenance manuals to be provided in English in hard and soft copy	Yes
	Details of equipments and procedures required for local calibration and routine maintenance to be provided and advanced maintenance task documentation also to be furnished	Yes
	List of important spares and accessories, with their part numbers to be provided to the buyer at the time of supplying the equipment	Yes
	Installation and Demonstration of equipment and training to be provided after completing supplies before acceptance	Yes
	The Principal Manufacturer must have direct Presence/approved service centre In India	Yes
	Calibration certificates as per NABH requirement	Yes
Additional Requirements	Additional Requirements	NA

3. Bio-safety Cabinet – II A-2 type

STANDARDS	
Conformity to Certifications	CDSCO/BIS /European CE/US-FDA)
Certification number and date	Yes
Conformity to Manufacturing Standards	ISO 9001 &ISO 13485/ ICMED 90001 &13485
Conformity to Safety Standards	IEC 60601 or BIS equivalent
PRODUCT DESCRIPTION	
Purpose	BSC are used to precisely control ventilation to sweep particles produced during routine handling of biological materials
Type of Configuration	Freestanding
Class of biosafety cabinet	Class II (A-2 type)
Type of air cleanliness class limits (air quality) in the working area	ISO 14644 1 and 2 (class 100)
Noise level in dB	≤ 65 dB
Nominal inflow velocity in feet per min with air volume @450 cube feet/min	100±10
Nominal down flow velocity in feet per min	50±5
Direction of air flow	Vertical
Type of air flow pattern	70% air recirculated through filter, 30% air exhausted
Pressure Monitoring System with pressure drop	13-14 mm hg pre fiber (filter).
Material used for working area	Stainless steel 304/ 316 grade.
Material used for the cabinet area	Stainless steel 304
Type of Sterilization used in the cabinet	UV germicidal tube.
Type of illumination used for working surface	UV tubes lights with optical reflectors to ensure uniform intensity distribution of the UV radiation throughout the cabinet along with white light.
Intensity of light in lux	≥ 900
Type of filter used for air supply and exhaust	HEPA (High Efficiency Particulate Air)
Pre filter provided	Yes
Filtration efficiency of HEPA filter	99.99% for 0.3 microns particles.

Maximum opening height of the sash (door) in mm (Put 0 if not applicable)	460-470 mm or better
Width of the working area in feet	3ft or more
Depth of the working area in feet	2 ft or more
Height of the working area in feet	2 ft or more
Type of Display	LCD
Front door	Clear, toughened sliding door of 5 mm thickness
Type of power supply in VAC, Hz	230 +/- 10 V, 50 Hz
Automatic airflow adjustment provided	Yes
Microprocessor control of air velocities in real time with display provided	Yes
UV Lamp provided	Yes, with separate switch
Control system for the choice of timed UV exposure provided	Yes
The exposure time of UV light to be controlled through timer (in mins)	5-30 min
Casing	Epoxy coated CRCA frame
Castors provided	Yes
Levelling jacks provided	Yes
Locking facility provided	Yes
Corrosion proof interior design and easy clean	Yes
Drain outlet with flexible hose	Yes
Inside space to provide full length hanging with removable shelves for storage or smaller items	No
Auto speed increase on the opening door for maintaining velocity	Yes
The time range to be controlled by the control system for the choice of timed UV exposure (in mins)	5-10 mins
Biosafety cabinet should have smooth interior and exterior	Yes
Audio and visual alarms for HEPA filter failure	Yes
Bio safety cabinet should have Provision for fitting taps	Taps for vacuum, water and non-combustible gas
Additional Accessories	
Magnehelic Gauge provided	1

Hepa filter	1
Number of UV Lamp	1
Gas burner	1
Miscellaneous Parameters	
User/Technical/Maintenance manuals to be supplied in English in hard and soft copy	Yes
Installation, Demonstration and training to be provided at consignee end	Yes
The Principal Manufacturer Must Have Direct Presence/approved service centre In India	Yes
Warranty (Option of comprehensive warranty is available through bidding only, which if opted will supersede normal warranty in the catalogue)	≥5 years
Calibration Certificates	As per NABH/ NABL requirement
Copies of all certifications and reports to be provided to buyer on demand at time of supplies	Yes

Additional Specifications-

- The BSC class II A2 must be NSF (National Sanitation Foundation) / ANSI 49 and UL & CE certified or class II EN12469; specifically, with regard to inward airflow (≥ 0.40 m/s according to EN 12469:2000 or ≥ 0.50 m/s according to NSF 49:2004) for a quoted model.
- Installation, onsite validation and certification to be provided with testing as per 'Field certified in accordance with NSF/ANSI49/EN 12469' and must meet the criteria as prescribed by NSF/ANSI49/EN 12469 for BSC Class II A2.
- Visual and audio alarm- on low exhaust flow, low down flow air velocity, exhaust fan malfunction, sash not in right position.
- UPS and voltage stabilizer must be supplied with BSC which can withstand for at least for 60 minutes.

4. a. **BOD Incubator (Entomology)**

Item	BOD Incubator
Design	
Features available in BOD Incubator	
Toughened glass window	Yes
Air circulation fan	Yes
Removable tray	Yes
Temperature sensor	Yes
Door hinges	Yes
Door handle with lock & key	Yes
Pilot lamp	Yes
PID temperature controller	Yes
PID temperature controller	Yes
Safety thermostat	Yes
Caster wheels	Yes
Power cord	Yes
Solid door	Yes
Heater	Yes
Temperature High/Low Safety alarm	Yes
Digital Ampere Meter	Yes
On/Off Switch	Yes
UV tube	Yes
Optional Features available in BOD Incubator	
Digital event timer	Yes
Illumination with 3 florescent lights	Yes
Stainless steel	Yes
Perforated trays	Yes
Humidity system (for Entomology purpose)	Yes
IQ, OQ & PQ Documentation, Caster wheels with brake	Yes
No of Trays	≥ 3
Air Circulation	Motorized blower
Material	
Exterior body material	Mild steel and Painted in Epoxy Powder Coating/ Stainless Steel
Interior body material	Stainless steel
Insulation material	Glass wool, used for thermal and acoustic insulation
Outer door material	Stainless steel

Inner door material of removable tray	Acrylic sheet
Material of removable tray	Perforated Stainless steel tray
Dimension	
Chamber Capacity (in ltr)	300±50
Thickness of Toughed Glass/Acrylic Sheet (in MM)	7-15
Diameter of Stainless Steel wire in mesh (in MM)	3-6
Wire Length(in mtr)	≥2
Power	
Temperature Range	5°C - 60°C
Temperature Accuracy	+/- 0.5°C
Temperature Uniformity	+/- 1°C
Power supply	230 volts 50 Hz
Warranty	
Warranty(in year)	≥5 Years

4. b. BOD Incubator (Serology)

Item	BOD Incubator
Design	
Features available in BOD Incubator	
Toughened glass window	Yes
Air circulation fan	Yes
Removable tray	Yes
Temperature sensor	Yes
Door hinges	Yes
Door handle with lock & key	Yes
Pilot lamp	Yes
PID temperature controller	Yes
PID temperature controller	Yes
Safety thermostat	Yes
Caster wheels	Yes
Power cord	Yes
Solid door	Yes
Heater	Yes
Temperature High/Low Safety alarm	Yes
Digital Ampere Meter	Yes
On/Off Switch	Yes
UV tube	Yes
Optional Features available in BOD Incubator	
Digital event timer	Yes
Illumination with 3 florescent lights	Yes
Stainless steel	Yes
Perforated trays	Yes
Humidity system	Yes
IQ, OQ & PQ Documentation,Caster wheels with brake	Yes
No of Trays	≥ 3
Air Circulation	Motorized blower
Material	
Exterior body material	Mild steel and Painted in Epoxy Powder Coating/ Stainless Steel
Interior body material	Stainless steel
Insulation material	Glass wool, used for thermal and acoustic insulation
Outer door material	Stainless steel
Inner door material of removable tray	Acrylic sheet

Material of removable tray	Perforated Stainless steel tray
Dimension	
Chamber Capacity (in ltr)	300±50
Thickness of Toughed Glass/Acrylic Sheet (in MM)	7-15
Diameter of Stainless Steel wire in mesh (in MM)	3-6
Wire Length(in mtr)	≥2
Power	
Temperature Range	5°C - 60°C
Temperature Accuracy	+/- 0.5 °C
Temperature Uniformity	+/- 1 °C
Power supply	230 volts 50 Hz
Warranty	
Warranty(in year)	≥5 Years

5. Compound Light Microscope

CONFORMITY / TYPE / EYE PIECE - OBJECTIVE DETAILS	
Microscope Type	Pathological binocular non-hinged with built in Light with Light Intensity regulator
Conformity to Indian Standard	Pathological IS:4381 latest / Research IS: 5204 latest
ISI MARKED	Yes/No
C/ML No (BIS License No)	As applicable
Eye piece Type	Compensating
Binocular Eye pieces Confirming to the requirements of IS: 8275/1976 (latest)	Yes
Eye Piece with magnification	Set of Two for Binocular 10X
Objective Type	Plan Achromatic Infinity/ Apochromatic
Objective Magnification	4X,10X,40X,100X
Numerical Aperture of Objective	1.25
Type of lamp for Illumination	LED type with battery backup
GENERIC	
Plano Concave mirror attachment	Yes
Stage	Rectangular
Coarse and Fine Movement of stage	Yes (on both sides)
Co-axial focussing	Yes
Micrometre Arrangement	Yes/No
ACCESSORIES	
Extra eyepieces (inclusive in the scope of supply)	Yes, set of two 10X
Carrying case, Dust cover, Immersion Oil, Lens cleaner & Spare fuse (inclusive in the scope of supply)	Yes
WARRANTY	
Warranty	≥5 Years
CERTIFICATIONS	
Availability of Test Report from Central Govt/NABL/ILAC accredited lab to prove conformity to specification	Yes / No
Test Report No and Date	As applicable
Name and Address of the Lab	As applicable

Additional specifications-

- Binocular ergonomic tilting observation head 0-35 degree with FOV 25mm and inter pupillary distance 48-75mm.

- Swing out ABBE condenser with a NA 0.9/1.25 and Quintuple inward coded nosepiece with auto intensity manager.
- 5W , minimum 20,000 hours Life LED with KOHLER System Illumination, Intensity control, Inbuilt SMPS (Switching Mode Power Supply) with a worldwide range, Field diaphragm, Rechargeable battery backup.
- 270º rotatable stage with a capacity to hold 2 standard microscope slides (75X25 mm) stage, hard coated surface with size minimum 153 x 135 mms (we should discuss).
- **Certifications:** ISI/ ISO13485 / ISO14001/ USFDA / CE / IS 5204 standards.

6. Deep Freezer -20°C

STANDARDS	
Conformity to Certifications	BIS/CE/USFDA
Certification date and number	As applicable
Conformity to electrical safety	IEC 61010-1,2 /IS13450
Performance parameters	
Purpose	For storage of biological products including ATCC cultures, enzymes, vaccines, chemicals or material testing components for a longer period of time
Capacity in Litres (range)	200 or more
Type of cabinet	Vertical/Upright /Chest
Ground Clearance in mm (range)	50 mm or more
Cooling type	Forced air cooling
Freezer body	Galvanized steel body with tough powder coated exterior finish
Castors	Heavy duty (lockable)
Lockable outer doors and lids	Yes
Material of internal cabinet	Stainless steel
Freezer should use CFC-free, HCFC-free non-flammable refrigerants	Yes
Refrigeration system must be energy efficient	Yes
Pull down time in hrs	2.5 to 5.2 hrs
Operating Temperature in degree Celsius	-20°C to - 40°C
Increment variation setting	1°C or better
Number of corrosion resistant racks	Not less than 4
Control	Fully programmable microprocessor controlled with membrane keypad and eye level control panel & digital temperature display LEC with 0.1°C graduation/ Microprocessor digital electronic controller cum indicator, PID controller
Number of inner storage compartments with insulated doors	Not more than 5
Digital temperature display	Yes
Should have battery backup for the display and security lock for the display	Yes

Alarms	Audible and visible alarm systems for unwanted temperature rise, sudden power failure, system failure and low battery, high and low temperature, hot condenser, open door, clean filter indicator, there should be a method to check alarm system
Noise level in dB Value	≤ 60
Stabilizer should be capable to run any voltage between 190V - 270 V	Yes
Warranty of Stabilizer in Years	≥5
Warranty of Freezer in Years (from the date of installation)	≥5
Additional Parameters	
Freezer must have washable condenser filter indicator which should keep fins free of dust to maintain peak cooling efficiency	Yes
One 5KVA servo stabilizer to be supplied with freezer	Yes
CO_2 cylinder should be supplied with freezer for backup	No
Temperature Chart recorder to be provided	Yes
Reports	
Manufacturer should have ISO certification	Yes
ISO certification date and number	As applicable
Copies of all certifications and reports to be provided to buyer on demand at time of supplies	Yes

Additional specifications-

- Hermetically sealed dual compressor with 5 years or more warranty and online UPS with at- least 1 hour backup.

7. Deep Freezer -80°C

(GeM Nomenclature: Ultra Low Temperature Laboratory Deep Freezer -80°C)

STANDARDS	
Conformity to Standards	CE /USFDA/ BIS
Certification number and date	As applicable
Conformity to standard conforms to standards IEC- 61010 for electrical safety latest amendment	Yes
Performance parameters	
Purpose	Used for storage of various samples, sensitive stem cells, plasma, semen, virus, bone grafts and other biological samples
Capacity in litres	300L or more
Freezer body	Freezer should have galvanized steel body with tough powder coated exterior finish constructed on steel
Material of inside chamber	Stainless Steel
Type of Cabinet	Vertical/ vertical with four adjustable compartment
Ground Clearance in mm	minimum 100 mm
Should have heavy duty lockable castors and levelling for adjustments and installation	Yes
Refrigerants	Hermetic sealed compressor with CFC free refrigerant
Refrigeration system must be energy efficient with pull down time in hrs	Less than 5.5 Hr
Operating Temperature with 1°C increment	-55°C to -86°C
Freezer must attain -80°C while operating at ambient temperature of 32°C	Yes
Number of holding racks	0 to 30
Control System	Fully programmable microprocessor controlled with membrane keypad and eye level control panel
Number of inner storage compartments with insulated doors and adjustable height	Minimum 4
Freezer should have heated air vent and easily accessible front panel air filter	Yes
Digital temperature display	Yes

Alarms	Audible and visible alarm systems for unwanted temperature rise, power failure, system failure and low battery
Noise level in dB	≤60
Stabilizer should be capable to run any voltage between 190V - 270 V	Yes
Double door with locking lids	Yes
Availability of decompression valve facility to lower air pressure inside freezer for easy door opening	Yes
Panels	VIP (Vacuum insulated panel) with Green PUF (poly urethane foam)
Number of compressors	2
Temperature uniformity	+/- -3°C or less
Temperature stability of system	+/- 3°C or less
Warranty of Stabilizer in Years	≥ 5
Warranty of Freezer (except compressor) in Years (from the date of installation)	≥5
Warranty of compressor in years	≥5 years
Additional Parameters	
Vacuum insulation panel	Yes
Freezer must have washable condenser filter indicator which should keep fins free of dust to maintain peak cooling efficiency	Yes
One 5KVA servo stabilizer to be supplied with freezer	Yes
CO_2 cylinder should be supplied with freezer for backup	NA
Number of corrosion resistant racks	≥3
Pairs of Cryogloves to be provided	1 or more
Number of Ice scraper to be provided	1 or more
Temperature Chart recorder to be provided	Yes
Availability of USB port to download event log and freezer setting	Yes/No
Reports	
Manufacturer should have ISO certification	Yes
ISO certification date and number	As applicable
Copies of all certifications and reports to be provided to	Yes

buyer on demand at time of supplies	

Additional specifications-

Hermetically sealed dual compressor with 5 years or more warranty and online UPS with at- least 1 hour backup.

8. Dissection Microscope

(GEM Nomenclature- Stereo Microscope)

Type / application- objective details	
Application	Zoological research work, Forensic research work (Biological specimen examination)
Microscope Type	Stereo zoom microscope
Optics (eyepiece/objective)	
Eye piece Type	Compensating
Eye pieces generally Confirming to the requirements	10x/23mm FOV
Eye Piece magnification	10X
Objective lenses Type	Achromatic / Apochromatic or better
Objective lenses Magnification	4.0X
Numerical Aperture of Objective	0.05
Nominal Working distance (mm) (+/- 10%)	50 millimeter
Zoom Ratio	6:1
Generic	
Stage Type	Manual mechanical stage with transmitted light bases and incident light
Stage size	100 mm
Zoom/Magnification operation	Manual
Focus operation	Manual
Filters	Daylight Filter
Type of lamp for Illumination	LED
Guaranteed life of Lamp for illumination (In hours)	250000 - 500000 hrs.
Illumination base	Transmitted and Incident
Warranty	≥5 Years
Test report / certification	
Type of lab which carried out Test of Complete Product to prove the conformity of product as per specification	OEM/Govt Lab/NABL Accredited lab
Agree to provide all relevant	Yes

documents Test Reports/supporting document /reports etc to the buyer at the time of bidding or on demand	

9. Dry Block Heater

Block Specifications	
Block Capacity	1
Set up Block Material	Aluminium alloy/ SUS304
Block Type	Full
Tube Specifications	
Diameter of probe tube	≥1.5 millimeter
Coating of probe tube	Safe coat
Tube Types	
PCR tubes	Yes
Standard Test Tubes	Yes
Conical Bottom Centrifuge Tubes	Yes
Operating Specifications	
Temperature Range,(+/-)	Ambient 5°C to 120°C
Heating Up Time, (Minute)	10-20 minutes or Better
Temperature Accuracy,(+/-) (Deg C)	0.5°C or Better
Power Supply	120-240 V; 50-60 Hz
Relative Humidity Tolerance,	20% - 80%, Non condensing
Temperature Uniformity at 37 Deg C,) (+/-) (Deg C)	0.5 °C
Technical Specifications	
Protection class according to DIN EN 60529	IP 21, EN 61326-1
Additional Parameters	
Applications	DNA extractions and analysis, Melting point determination, Boiling point determination, Immunoassays, Enzyme reactions and processes, Enzyme activity studies, In situ hybridization, Blood-urea-nitrogen determinations, Nucleic acid hybridization, Coagulation studies, Biochemical processes, Incubation and activation of cultures, Blood examinations, Biophram, Life Science or Cancer research
Accessories Included	Dry bath, Block lifter
Features	Digital controls and display of time and temperature
Generic	
Warranty, (Select 0 if NA)	≥ 5 Years
Certification, Standards and Test Reports	

Certifications	CE
Test report to be submitted to the buyer on demand	Yes
Availability of Test Report from Central Govt/NABL/ILAC accredited lab to prove conformity to specification	Yes/No
Name and Address of the lab (Please write NA if not applicable)	As applicable
Test Report Date and Numbers (Please write NA if not applicable)	As applicable
Standards	EN 61010-1

10. Electric Sterilizer for Inoculation Loop

Mechanical Parameters	
Should Provide uniform and constant heat for perfect sterilization	Yes
Material	Stainless steel
Dimensions	
Diameter of Sterilizing Tube	12-15 (in millimeters)
Length	140-150 (in millimeters)
Number of Angular adjustments	5-7
Temperatures	
Sterilization time	5-7 sec
Heating-up time	700°C /15minutes
Sterilization temperature	900-950°c
Electrical Parameters	
Power supply	240 volts Single phase AC supply
Input Frequency	50 hz
Power consumption	250 Watt or Higher
Additional Parameters	
Should be compact enough with a height,width and diameter should not be more than 300mm	Yes
Warranty (Years)	≥ 5 Years
Should have GMP compliance	Yes
Should have a long Lasting Sterilizing Tube	Yes
The system Should Have Temperature Indicating Controller	Yes
Safety features	
Residual heat display	Yes
Certifications and Approvals	
Safety Standards	EN 61326-1/EN 61010-1/EN 61010-2-010
Test Report Details	
Test Report Number	As Applicable
Availability of Test Report from Central Govt/ State Govt/NABL/ILAC accredited lab	Yes/No
Address of the Lab	As Applicable
Test Report date	As Applicable
Test Report to be furnished to the Buyer on demand	Yes
Name of the Lab	As Applicable

11. ELISA Reader and Washer

Standards	
Certifications for product	USFDA/CE/ BIS/ UL/ CDSCO
Certification number and date	Yes
Manufacturer should have ISO 13485 certification for quality standards	Yes
Performance Parameters	
Application	ELISA reader & Washer – Semi automated platform for ELISA which detects / measures the presence / concentration of an analyte (antibodies/antigen)
Type of Reading	Strip and Plate (both)
Type of model	Bench Top
Number of samples at a time	96
Self-check at startup	Yes
The system should have user friendly software	Yes
Automated well washing performed at customized volumes and cycles	Yes
Curve fit Modes	LIN/LIN,LIN/LOG,LOG/LOG, Auto curve
Elisa Reader and Washer shall be adjustable for different micro plate geometric	Yes
Availability of halogen lamp	Yes
Availability of aerosol Shield for user safety	Yes
Variable speed and plate/strip shaking capability	Yes
Design of Elisa Reader and Washer should eliminate overfilling and contamination	Yes
Design of Elisa Reader and Washer should facilitate easy cleaning	Yes
16 manifold washer - 8 dedicated needles for aspiration and 8 for dispensing to avoid cross contamination	Yes
Operating modes	LJ chart, CV evolution, OD evolution, West guards
Bio-hazardous waste disposable container provided	Yes
Power supply	230V, 50 Hz
Availability of external Laser printer	Yes
Type of monitor	LCD
Keyboard	External
RS 232 Port	Yes/No

USB Port	Yes
Memory Storage capacity for test results with patient ID	More than 5000
Methods of assay	Qualitative, Semi quantitative and Quantitative
Processing Temperature settings in degree Celsius	At room temperature and 37°c
Graphical display of plate/strip lay out for specifying controls ,samples and blanks etc	Yes
8-12 channel manifold, all tubing sets, wash, rinse and waste bottles, maintenance kit to be provided	Yes
2 sets Use Manual and Technical Maintenance manuals in original to be supplied	Yes
Warranty (Option of comprehensive warranty is available through bidding only, which if opted will supersede normal warranty in the catalogue)	≥5 Years
Reader Specifications	
Dynamic range in OD	0 to 4
Wavelength range in nm	400-800
Filter	405,450,492,630 with a provision to add ≥ 3 filters
Automatic filter selection	Yes
Precision <1% CV	Yes
Resolution	0.001 or better
Accuracy	±1% or better
Washer Specifications	
Wash cycle	0-12
Residual volume in ul	8 µL or better
Washer buffer capacity in litres	≥2 liters
Availability of low buffer alarm	Yes
Soak time in hours	≥30 minutes
Dispense pressure pre-set	Yes
Availability of rinse function	Yes
Process Security	
Interfacing with Computer include desktop PC running windows based OS	Yes
Data processing	Semiquantative, Quantitative and Qualitative

Additional specifications for ELISA reader and washer:

1. Should have capability to wash flat, U or other commonly available bottom micro plates.
2. Fully automatic plate washer, should have removable and autoclavable plate carrier.

3. Washer should have strip selection option which allows washing selected strips only

4. Should have inbuilt vacuum and dispensing pumps/peristaltic pumps to ensure accurate and quiet washing

5. Should have 2-4 independent liquid channels

8. Wash volume per well should be programmable

9. Should have more than 50 wash programme memory

10. Programmable washing time, volume and soaking time

11. Should provide additional 2 numbers- each of wash buffer bottle and waste bottle along with the tubing.

12. Fume Hood

(GeM Nomenclature: Fume Hood with Scrubber)

CONFORMITY	
Conformity to Technical Requirements/Governing Specifications	CE/USFDA/BIS/ISO
Performance Parameters	
Purpose	Used to protect laboratory users from toxic fumes and vapours generated by various operations and laboratory procedures
Internal Washing or Cleaning	Yes
Storage Cabinet Depth	700-800 millimeter
Casing and Coupling Thickness	5-8 millimeter
Exhaust Motor Assembly Power	1.5-3 horsepower
Shutters and Drawer Fronts Thickness	8-12 millimeter
Storage Cabinet Width	1500-2000 millimeter
Ducting Diameter	250-350 millimeter
Internal Thickness	8-12 millimeter
Ducting Material	FRP (Fiber Reinforced Plastic)
Fume Depth	700-1200
Storage Cabinet Height	800-1000
Fume Width	1500-2000
Exhaust Motor Assembly Voltage	110-240 volt
Lightning	LED lights of 20 watts with acidic fume resistant casing
Suction Rate	≥ 1000 cfm
Hood Top Thickness	12-18 millimeter
Sash Handle	Anodized Aluminium handle/Others
Sash Type	Single, Vertical sliding 5mm toughened glass door, concealed type door, balanced with counter weights, sash weights
External Thickness	13-17 millimeter
Base Cabinet Features	Adjustable shelf
Ducting Thickness	4-6 millimeter
Material of Construction	Stainless steel
Fume Height	1300-1700 millimeter
Storage Cabinet Thickness	12-18 millimeter
Fume Hood Worktop (Bed)	20 mm thick polypropylene material with striking on 3 sides
Casing and Coupling Material	FRP Bisphenol

Exported Face Velocity at open sash, rpm	100
Baffle Thickness	10-15 millimeter
Ducting Length	28-32 millimeter
Exhaust Motor Assembly Phase	Three Phase
Scrubber Specifications	
Mist Eliminator	PP mist eliminator
Packing	50 mm PP pall rings
Pump for Water recirculation	1 HP single Phase centrifugal pump with PP impeller and casing
Vapour Inlet Diameter	250-350 millimeter
View Glass Water Level Indicator	Yes
Water Drain Outlet Diameter with PP ball valve	20-30 millimeter
Vapour Outlet Diameter	150-250 millimeter
Water Circulation Flow Rate, LPM	20-30
Scrubber Height	2800-3200 millimeter
Scrubber Type	Cylindrical type spray tower scrubber
Scrubber Flow rate, cfm	3500-4000
Scrubber Material of Construction	2 mm thick pp and 3 mm thick FRP
Scrubber Diameter	1200-1500 millimeter
Recirculation Water Tank Capacity	200-400 liter
Liquid Inlet Diameter	20-30 millimeter
Generic	
Warranty	≥5 years
Installation provided	yes
Certification	As applicable

13. Haematology Analyser
(Not available in GeM Portal)

Performance Parameters

1. Should be closed system with LASER based scatter analysis principle.
2. Should have a 5-part WBC differential without Retic and NRBC% enumeration capability.
3. Should have body fluid (CSF, synovial, serous) parameters like WBC- BF, RBC- BF, MN, PMN, TC-BF.
4. Should have IPF, PLT-0, PLT-f, IG%, IG# analysis
5. Should have discrete analysis modes for CBC, CBC + DIFF.
6. Should have triangle laser flow cytometry for WBC analysis.
7. Should have electrical impedance for platelet measurement.
8. Should have electrical impedance for RBC measurement.
9. Should have cyanide free colorimetry for Hb measurement.
10. Should be supplied with 1 rack to cater to different tube sizes.
11. Maximum sample aspiration volume needed in all modes should be 20ul of less.
12. Minimum sample volume required in all modes 15ul of less.
13. Throughput capacity in CBC/ Differential should be 50- 60.
14. Should have open vial mode of sample running.
15. Haemoglobin linearity should be 0 - 25 gm per litre.
16. Should have auto dilution.
17. Calibration should be both manual and automatic.
18. Direct aspiration of capillary blood from finger prick – No.
19. Should be provided with separate diluting nozzle for RBC and WBC.
20. Should have a double bathing mechanism.

Data Management & Display

21. Should have an inbuilt data management system.
22. Should have an LCD display.
23. Should have a >5 inches inbuilt monitor.
24. Should have facility for external USB storage.
25. Should have Health Level 7 HIS/ LIS interface.
26. Should have at least 4 USB ports.
27. Should have a laser printer facility.
28. Should be able to store ≥ 50000 sets of results and graphics.
29. Should have a LJ Plot facility.
30. Should have delta check for cumulative review.
31. Should have online Quality Control option.
32. Should display patient moving average.
33. Should have QC file management.
34. Should have touch screen, USB port and Lan port for data entry.

Power Requirements

35. Should be supplied with a 0.5 KVA Ups.

36. Back up time should be less than 30 minutes.

Accessories, spare parts and consumables.

37. Equipment should be supplied with sufficient consumables (with at least 2/3rd of total shelf life) sufficient to carry out 500 haematological tests.

Additional Parameters

38. Analyser must give the Values of NRBC.

39. The analyser must give the corrected value of WBC without interference of any other cells.

40. There must be provisions to add results for some parameters like ESR, CRP, Blood group or some parameters related to CBC and give the print out on same report.

14. Horizontal Laminar Air flow

(GeM Nomenclature: Laminar Air Flow Cabinets or Stations)

Product Description	
UMDNS Name and Code	Cabinets, Biological safety, Class II : 20-653
Other Names	Laminar Flow (Horizontal)
Purpose	A laminar airflow workstation is a closed cabinet fitted with HEPA filtered airflow system
Certifications	
Confirmity to Certifications	CE/USFDA/CE & USFDA/CSDSCO
Confirmity to Manufacturing Standards	ISO 9001 & ISO 13485/ISO 90001 & ISO 13485
Confirmity to Safety Standards	IEC 60601-2-18 / BIS equivalent
Technical Specifications	
Type of configuration	Freestanding/ benchtop
Type of air flow direction	Vertical/Horizontal
Type of air cleanliness	Class 100
Material used for the work bench	Stainless steel 304/Powder coated MS/GI/Stainless steel 316
Type of Sash (front door)	Manual sliding
Material used for the front door	Acrylic transparent
Material used for the Side panels	Acrylic
Thickness of the floor or side panels	2-8 mm
Door and Frames should be hermetically sealed	Yes
Laminar air flow Velocity (m/s)	0.4- 0.45
Air changes per Hours, Min	30
Type of light	LED
Number of LED lamps	1/2
Noise level (±5) in DB	Less than 65
Availability of Pre-Filter (washable) for air filtration with 10 microns	Yes
Availability of HEPA filter (Microns)	0.3
Availability of air/gas cock	Mains switch
Availability of motorized sliding door	No
LCD display for velocity, time & lamp on/off	Yes
UV Hour meter	Yes
UV Germicidal lamp	Yes
DOP HEPA filter testing	Yes

Digital Pressure Gauge with Alarm	Yes
Availability of display	Yes
Type of display	LCD/LED
Power Requirements	
Power supply	100- 240, 50-60 Hz
Purchase Information	
User/Technical/Maintenance manuals to be supplied in English in hard and soft copy	Yes
Installation, Demonstration and training to be provided at consignee end	Yes
The Principal Manufacturer Must Have Direct Presence/approved service centre In India	Yes
Warranty (year)	≥5
Copies of all certifications and reports to be provided to buyer on demand at time of supplies	Yes

15. Hot Air Oven
(Not Available on GeM Portal)

1. Capacity of 90L-120L.
2. Dual digital display with Microprocessor based PID controller.
3. Temperature range: ambient temperature plus 10°C to 250°C.
4. Temperature accuracy of 1°C controlled by thermostat.
5. Temperature heating up time 20 min. at 150°C.
6. Double walled, inner chamber should be made up of stainless steel.
7. Outer chamber should be made up of mild steel with epoxy powder coating.
8. Heating Element placed in the ribs of the bottom & 3 sides for uniform heating.
9. Temperature is controlled by thermostat with an accuracy of ±1°C.
10. Mineral wool/ceramic wool insulation.
11. Door should also be insulated and fitted with heavy hinges.
12. Motorized blower for forced air circulation.
13. Blower motor should be at least 1/35 HP, totally enclosed and should be air cooled.
14. At least 3 removable shelves.
15. Should work in ambient temperatures >40°C and 15-90% humidity.
16. Should have over heating protection.
17. Audio-visual safety alarm should be provided.
18. Shelves should be made up of wire mesh sleeves of stainless steel.
19. Should have ergonomic handle design with two-point door lock.
20. Should conform to electrical safety standards IEC 60601/ IS 13450 with latest amendments.
21. CE, /ISO 9001:2015/ ISO 13485:2016 Certified.

16. Humidifier

(Not available on GeM portal)

1. Should have four ways mist nozzle head.
2. The rotation should be 360- Degree rotary with mist control knob.
3. Should have 45 % to 95% constant humidity (5% adjustment per touch).
4. The optimal running duration of humidifier should be 12 hrs.
5. The humidifier area coverage should be 1000 to 1200 sqft.
6. The equipment should have timer, remote and touch control system.
7. The equipment should be caster wheel based.
8. Should have top tank filling type.
9. The humidifier should have 15 to 20 litter's tank capacity.
10. The humidifier should have regulator for (Low, medium and high) indication.
11. The humidifier should be made up of fiber/plastic.
12. Power supply – 1.2 E+ 2 Volts.
11. The equipment shall be demonstrated before acceptance.

17. Hygrometer

(GeM nomenclature: Digital Thermo Hygrometer)

Standards	
Performance parameters	
Purpose	Used to measure and monitor humidity levels in Mosquito vector colony and laboratory
Temperature Resolution (deg Celsius)	0.1
Temperature	-10 to 100 deg celsius
Temperature Accuracy (deg Celsius)	0.5
Temperature sensor	Diode Type or Thermistor Type
Humidity Parameter	
Humidity Sensor	Thin film capacitance or Thermistor
Humidity Output	10mv DC/1 percent RH
Humidity Resolution (%), RH	0.1
Humidity (%), RH	0.0-99.9
Humidity Accuracy (%), RH	2
Generic	
Power supply	Battery operated and 230 +/- 10 V / 50 Hz AC Power cable with plug to suit Indian socket
Display	Digital
Automatic switch off	No
Warranty	
Warranty	≥ 5 Years
Certificates and standards	
Certification of product	Precision and Accuracy test
Certification number and date	As applicable
ISO certification of Manufacturer	Yes

18. Laboratory Refrigerator

Generic	
Capacity of Refrigerator (In Litres)	300 - 350
Lower of Temperature Range (±0.5 Degree Celsius)	2
Higher of Temperature Range (±0.5 Degree Celsius)	8
Cooling Method	forced air cooling system
Refrigerant	CFC free refrigerant gas
Refrigerant Type	Non CFC
Temperature Controller	Microprocessor based digital controller (temperature, on/ off switch ,digital thermometer and power on indicator.
Insulation Type	PUF
Display Type	LCD/LED
Wheels Availability	YES/No
Number of Wheels	4 or more
Wheels Type	Castor/NA
Wheels With Brakes	Yes/No
Insulated Doors	Yes
Door Lock	Yes
Chamber Lightning	Yes
Type of Chamber Light	LED
Hermetically Sealed Refrigeration Compressor	Yes/No
Alarm	Yes
Energy Star Rating	Minimum 3 Star
Power Supply	230 V Single Phase (50 Hz)
Power Consumption of Refrigerator	Approx-125 -250 Watts
Dimension and Constructions	
Number of Shelves/Drawers/Trays	4 or more
Shelves/Drawers/Trays Type	Solid
Shelves/Drawers/Trays Material	Toughened glass
Outer Body Material	Mild Steel
Inner Body Material	Mild Steel/SS 304/SS 316
Number of Doors	1
Door Type	Single Glass Door
Corrosion Resistant Shelves/Drawers/Trays	Yes
Certification, Testing & Warranty	
Warranty for complete unit (Excluding Compressor)	≥5 years
Warranty on Compressor	≥5 years

Conformity to Standard(s)	CE (With 4 Digit Notified Number) compliant with IEC 61010 with latest amendment (suitable and working with voltage stabilizer)
Availability Of Test Report From Central Govt/NABL/ ILAC Accredited Lab To Prove Conformity To Specification	Yes/No
Test Report Number and Date	As Applicable
Copies of reports and certifications to be furnished to buyer on demand at time of supplies	Yes

19. Magnetic Stirrer with Hot Plate

CERTIFICATIONS	
Firm Certified to ISO9001:2008 or latest	Yes
Product is CE certified (Seller to furnish supporting document to Buyer on demand)	Yes
EN/IEC directives	As applicable
Name and Address of the Lab	As applicable
Availability Of Test Report (to be furnished by Seller to Buyer on demand) from Central Govt/NABL/ILAC accredited laboratory to prove conformity to specifications	Yes/No
Test Report details; Number, date of issue, name and address of issuing laboratory	Yes/No
CONFIGURATION AND FEATURES	
Number of stirring Positions	1
Calibration	Automatic
Type of Drive Motor	Brushless motor DC
Display Option/Output Read out Option	Digital
Magnetic stirrer is	With hot plate or some other means for heating the liquid
Magnetic stirrer Type	Variable type
Controller type	Microprocessor controlled
IP rating or Ingress protection rating	≥ IP 60
Programmable	No
Direction change feature	No
Speed Control Accuracy of set speed (+/-) (RPM)*	≤5
Maximum Stirring capacity per position	≥3000 milimeter
Top plate Material	Ceramic
Timer Provided	Yes
User Interface	Digital front panel
Pulse mode	Yes
Slip Detection	Yes
Accessories and spares included in standard pack	Yes
WARRANTY	
Warranty on Machine	≥5 years
MISC (Miscellaneous)	

In built-in multi-step safety system to continuously monitor device operation and protect against damage should the operation exceed the pre-determined parameters	Unsafe hot plate temperature- temperature exceeds parameters/Vessel Breakage – Should The Vessel Have A Crack And The Solution Begins To Leak, provision for preventing liquid from damaging equipment
Ambient operating Temperature range 0 to 50 degree and RH 80%	Yes
POWER SUPPLY	
Input Voltage with Phase (V)	220 V, 50 Hz AC, Single phase
Power consumption	250 watt or more
SPEED	
Speed Mode	Variable speed
Speed (RPM)	100-150
DIMENSIONS	
Body Material	Metal alloy
Finish of Body material	Powder coated
STIR BAR	
Stir bar cover material	PTFE Coated Alinico Magnet
Stir Bar length	10-15 millimetre
TOP PLATE	
Top plate area shape	Circular
Circular Top plate diameter	≥150 milimeter
Top plate Finish	Ceramic coated

20. Micro-fuge

(GeM Nomenclature: Refrigerated Micro Centrifuge)

SET 1	
Microprocessor controlled High speed Micro centrifuge	Yes
Maximum permissible Speed (RPM)	13000 to 15000
Relative Centrifugal Force (RCF), Max	20,000 ×g to 22,000 × g
Temperature Range	-10 degree C to +40 degree C
Refrigeration System	NA
Display for Speed, RCF, Temperature and Time parameters	Yes
Type of Display	LCD display/ LED display/Full colour touch screen interface display
Facility for short run operation	Yes
Imbalance System and Selectable acoustic Alarms	Yes
Running Modes available: soft/fast accelerate, decelerate and break off mode	Acceleration/Deceleration rates 9/10
Operation of equipment	By keypad operations/ By Touch screen
Angle rotor Polypropylene/metallic 24 x (15/10) ml or Dual row rotor with same capacity/volume	With angle rotor24×1.5/2.0mL rotor with Click seal bio containment lid
Lid	Click seal bio containment lid
Certification:	US FDA/ CE(European)/ ICMED 13485 plus/ CDSCO/BIS
Adopter for PCR tube sizes	0.2ml to 0.5ml
Time Selection:	1-99min or continuous

21. Microwave Oven

Conformity to Standards	
Conformity to Indian Standard IS 11676 (Latest)	Yes
ISI Marked hrs)	Yes
CML No	To be provided by the seller
Dimension	
Capacity / Volume (Litres)	20
Diameter of turntable (mm)	226-250 Litres
Usable Shelf Area in m2	20 L
Parameter	
Grill Heating Power(Watts)	501-550
Operating AC voltage (Volts)	231-240
Heating time adjustment Pitch(seconds)	5
Microwave frequency	1400
Maximum heating time	30 minutes
Microwave heating power (Watt)	651-700
Power Levels	5
Warranty	
Unit Warranty	≥5 Years
Magnetron and Cavity Warranty	≥5 Years
Performance	
Convection heating	No
Touch control panel	Yes
Oven glass window	Yes
Adjustment of microwave power	Yes
Finish of heating chamber	Stainless steel
Display of power On/Off	Yes
Grill heating	No
Display for set heating time, present time and power	Yes
Rotisserie rack	No
Door safety lock system	Yes
Uniform Heating/Rotating Plate	Yes
Generic	
Colour	White / Black
Additional Features	
Auto Cook Menus	Yes
Multistage Cooking	No
Door Type	Side Swing

Control Types	Feather Touch Membranes
Display Type	LED
Defrost	Yes
Oven Mode	Yes
Quick Start	Yes
Pre Heat	Yes
Grill Rack	No
Starter Kit	Yes
User manual	Yes
Moisture retention	Yes
Front Panel Material	Glass
Child Lock	Yes
Door Open Type	Hinge

22. Needle cutter/Destroyer

(GeM Nomenclature: Needles and syringes destroyer)

GENERAL	
Purpose	To destroy the used Injection needles by instant electro melting process & to cut syringe tips electrically using the appliance
Type	Portable & Electrical
Principle of operation	Electro melting type
CONSTRUCTION	
Suitable sliding tray shall be provided for collection of residue and destroyed syringe tips	Yes
Material of the Housing /enclosure	ABS plastic
Housing/enclosure shall be moulded type and shock proof	Yes
Provision to burn the needles and to cut the syringe tips shall be provided in the unit	Yes
Manual cutter provided in the equipment	Yes & made of hardened blade of anti-corrosive SS material
Transformer winding	Aluminium / Copper
FUNCTIONAL	
Number of needles of 1mm diameter and 80mm length that can be destroyed in continuous operation of 5 minutes	8
Sizes of injection needles of all kinds which can be destroyed	Diameter ranging from 0.4 mm – 1.6mm (26SWG – 14SWG) with length from 12.5mm – 80 mm
ELECTRICAL	
Power supply	240 volts Single phase AC supply
Power ON/OFF switch with indicator shall be provided	Yes
Rated power(Watts)	60 watts
Shall be provided with fuse and power cord of min 3m length and earthing point	Yes
Manual of usage instructions	Yes
CERTIFICATIONS	
Availability of Certification for the product to ISO-13485-2009 from Govt. approved Lab	Yes
Comply in general to IS:302Pt-1/1979 to ensure safe and reliable operation in normal use	Yes
Occupational health and safety certification from	Yes

approved bodies as per OHSAS 18001-2007	
CE Certification from Govt. approved bodies	Yes
TESTS & REPORTS	
Residual heat display	Yes
Certifications and Approvals	
Safety tests shall consist of marking, protection against electric shock, temperature rise , IR, Leakage current ,HV, Stability and mechanical hazards, mechanical strength, constructional requirements, creepage distance and clearances, resistance to heat, fire and tracking as per IS:302Pt-1/79	Yes
Performance tests shall consist of capacity test as per clause 14 above ,power consumption test at maximum load and ability to cut syringe tips	Yes

23. Non-Refrigerated Centrifuge

(GeM Nomenclature: Non Refrigerated Centrifuge for General Purpose and research)

Standards	
Conformity to standards	European CE (Notified Body) With 4 Digit Notified Body No / BIS/ ICMED 13485 plus IEC 61010-1/ IEC 61010-2-020 / IEC 61010-2-101 / EN 61326-1
Certificate number and date	As applicable
Performance Parameters	
Purpose	To centrifuge different types of samples in different labs & research labs at room temperature
Centrifuge design	Bench top
Maximum RPM with no load	20000
Number of steps of RPM Variation available in the settings (correspondingly RCF also varies)	10 or better
RPM setting accuracy	± 5%
Type of Motor	Brushless without carbons
Type of lid lock	Both Manual and Electronic
Maximum Noise level when working at 1 meter distance in db	≤60 db
Ambient operating Temperature range in Degree centigrade Celsius and Humidity Range	10 -50 deg Celsius with Relative Humidity of 15 to 90%
Rotor imbalance diagnostics and automatic stop if required	Yes
No of acceleration and deceleration profiles in built for rotor speed while automatic braking	Programmable from 30 to 300 Seconds in Interval of 5 Seconds
Maximum timer set point	60 minutes or better
Parameters to be displayed by the digital display	RPM, RCF, Set time, Run time, Rotor running indication, Imbalance if any
Display Type	LCD
Speed controller	Microprocessor controlled pre-programmed speed controller which can control RCM & RCF both
Configuration of Rotor supplied with centrifuge machine	angle rotor
Rotor Feature With Reference to Autoclavability	Autoclavable rotor @121ºc
Type of Tubes which can be used with centrifuge machine	Polypropylene & Glass centrifuge tubes
Size of rotor supplied with centrifuge	24 X 15 mL (for angle motor) RPM 6000
Maximum RCF	6000
Power supply	220-240V, 50 Hz

Length of Power cord in meters	3 meters or more
Accessories	Spanner to tight or loose Nut of Rotor on Motor shaft head puller, spare rotor nuts , fuse-2, Instruction Manual Book , installation CD, Power supply cable
Warranty period in years	≥5 years
Material Parameters	
Assembly Material for manufacture of Centrifuge	Stainless steel bowl, steel armor plate, zinc coated and powder coated sheet
Lid Material of Centrifuge	Steel armor plate with high impact PC-ABS plastic cover
Body material of Centrifuge	Zinc coated and powder coated sheet metal sheet for housing zinc coated armor ring
Front Panel of centrifuge	CRC steel finish with powder coating or stove painting or ABS plastic of injection moulding
Centrifuge Bowl material in Centrifuge	304 Quality stainless steel moulded
Material of Rotor	Aluminium
Additional Parameters	
Auto cut off	Yes
Timer provided	Yes
The Equipment shall be installed and demonstrated before Acceptance	Yes
Servo Controller Voltage Stabilizer supplied with Item	No
Servo stabilizer ratings in KVA	NA
Warranty of stabilizer in years	NA
Reports	
Certifications of Manufacturer	ISO 9001:2015
ISO certificate date and number	As applicable
Copies of all certifications and reports to be provided to buyer on demand at time of supplies	Yes

24. PCR Workstation/ PCR Cabinet
(Not available in GeM Portal)

1. Bench top model, require no duct work
2. Inner chamber dimension: LXWXH (1.5-2 ft X 1-1.5 ft X 1.5 -2 ft) or better
3. Outer chamber should be made up of mild steel/GI sheet with powder coated body.
4. Working chamber with the three-stage filter- prefilter, carbon filter, HEPA filter of 99.9% efficiency or better, UV radiation and SS 304 or better body and work surface, chemical resistant.
5. Working chamber with 2 inbuilt short wave UV tubes (254nm, 25 W or better) and 1 UV tube in UV air circulation (250±30nm, 8 W or better) and 1 white light tube (15 W or better) fitted with UV timer minimum 01 to 59 minutes with automatic UV cut-off switch when sash is opened. Functional indicator for UV air circulating tube.
6. Sash should be made up of clear, UV resistant and Chemical resistant acrylic glass.
7. Working chamber may have built-in Pipettes holder.
8. CE IVD/USFDA/BIS certified or manufacture ISO certified.

25. **Penta Head Training Microscope with Visual Aids**

Certification And Standards	
Certificates	CE/US-FDA/ISO/BIS
Compliance to ISO 13485	Yes
Design and Material	
Viewing head inclination	30 degrees
Focusing	Coaxial Coarse and Fine Focusing Knobs
Stage (Double Layers Mechanical Stage) (millimeter)	125-145
Viewing head	Trinocular
Interpupilary distance (millimeter)	48-75
Stage (moving range) (millimeter)	75X50
Eyepiece	WF10X
Pointer	Green LED pointer/Dual Colour pointer
Nosepiece	Quadruple revolving nosepiece
Performance parameter	
Video adapter (C mount)	0.5x/1x
Infinite Plan Achromatic Objective	4X,10X,40X,100X
Condenser	N.A.0.9/1.25
Light Source	LED
Additional information	
Portable	No/ Yes

Additional Specifications:

1. Body: Ergonomic Stand, Single die cast with rubber feet, inbuilt intensity control / On-Off Switch, inbuilt slot for filters.
2. Optical System: Infinity optical System, with Anti-fungal coatings & Chromatic free.
3. Light Source: LED 7-10W Kohler illumination for uniform light distribution and with 50000 Hours life pre-centred & pre-aligned, with motion sensor detects when an operator leaves and automatically turns off the light.
4. Nose piece: Inward/Reverse revolving Sextuple Nosepiece with Slots for POL/DIC, to accommodate 6 objectives in future.
5. Observation head: Trinocular Ergonomic head with 30°inclination, FOV 25mm, 3 position light distribution (100:0 / 70:30/ 50:50) for Eyes & Camera Port.
6. Eyepiece: WF10X/ FOV 25mm Eyepiece with built in ±5 dioptre adjustment on both eyepieces.
7. Focusing: Coaxial coarse/fine focusing knobs on both side of microscope unit, fine

focusing 0.01mm per revolution (min reading 1 micron).

8. Mechanical Stage: 270° Rotatable Right handle rectangular ceramic /glass coated coaxial stage with cross travel of 75±5 mm (X) x 50±5 mm (Y) with vernier calibrations, stage handle height and torque adjustable, 2- slide specimen holder.
9. Condenser: Swing-out condenser 0.9/1.2 N.A., suitable for range 2x-100x magnification.
10. Objectives: Infinity Plan Achromats or Apochromatic or better 4X (NA- 0.10 or better, 10X (NA-0.25 or better), 20X (NA-0.45 or better), 40X (NA-0.60 or better) & 100X (NA-1.4 or better) Oil, free from chromatic aberrations, par-focal & par-centred.

Microscope HDMI Camera Projection & LED TV System:

11. Scientific grade 1/2" or 2/3" HD CCD or backlit16 bit grayscales CMOS sensor, Colour Camera.
12. Resolution at least 8-10 megapixels, 4K Ultra High-Definition resolution.
13. Speed: min 30 FPS at 1900x1200 pixels, jpg or MP4 images with Maximum 10 megapixels, 0.65x Camera adopter.
14. Camera can be connected through HDMI / Wifi or USB for PC connectivity/ HDMI cable 2.5 m, USB Cable 1.5m. At least 2 USB port to export image jpg/ tiff or raw file format.
15. Camera should have inbuilt slot for SD Card with 32GB memory, to capture images/video when cameras is attached to TV/Projector.
16. Camera should also be able to measure images when it is connected to TV/Projector
17. On board embedded Camera control software with measurement &annotation tools. The software should be upgraded regularly during warranty and CMC free of cost.
18. Projection Display: 32" Full HD Color TV.

Accessories:

1. Cover and casing for storage of objectives, eyepieces and whole assembly.
2. Microscope cleaning tool kit with lens cleaning solution.

26. pH Meter

Warranty	
Warranty (Year)	≥ 5 Years
Impact Resistant	Yes
Ingress Protection, Water Tight	Yes/ IP 56
Storage pocket for pH electrode	Yes
System to be supplied with Measuring electrode combined & glass calomel, temperature probe, Electrode Stand, calibration buffer and maintenance kit, operation manual, power cable and plug	Yes
Configuration	
Type	Microprocessor Based/Microcontroller Based
Display	LED/LCD/Touch screen, 3 digits
Calibration	Up to 3 points with auto buffer
pH Range	0.00 to 14.00
Accuracy	± 0.05
Corrosion resistant	Yes
Power requirements	230 V+- 10,50 Hz AC/Battery operated
Modes	pH mV-C
Parallel temperature indication	Yes
Temperature Compensation Type	Manual or automatic with ATC probe
Temperature Accuracy (Degree C)	± 0.3
Temperature Compensation Range (Degree C)	0 to 100° C
Resolution (pH)	0.01
Operating Humidity: RH in (%)	0-100
Operating Temperature (Degree C)	-20 to 50
Certifications	
Availability Of UL/CE Certification As Per EN 61010-1:2010 Safety Requirements For Electrical Equipment For Measurement, Control, And Laboratory Use General Requirement	Yes
Test Reports For EMC/EMI As Per EN 61326-1:2013 Electrical Equipment For Measurement, Control And Laboratory Use EMC Requirements General Requirements (Test Reports Are To Be Furnished When Demanded By Buyer	Yes
Availability Of Test Reports From Central Govt / NABL Approved / ILAC Acredited Lab To Prove	Yes

Conformity To The Specification (Test Reports Are To Be Furnished When Demanded By Buyer)	
Test Report Number and Date	As Applicable
Name and address of the Lab	As Applicable

27. Real Time PCR Equipment

GENERAL INFORMATION	
Product -Name	Real time PCR Machine
Purpose	Real- time PCR(Polymerase Chain Reaction) machine is an advanced laboratory instrument used to amplify and simultaneously quantify DNA or RNA in real-time.
PRODUCT INFORMATION	
System Type	Open
Capacity of Blocks	96 well
Number of channels (minimum)	5 or more
Maximum Heating ramp rate in degree per second	4 or more
Maximum cooling ramp rate in degree per second	4 or more
Adjustable heating / cooling ramp rate	Yes
Operating Temperature range (degree celcius)	4-105 ° C
Hot Lid Temperature (degree celcius)	30-110 ° C
Sample volume range in micro litre	5-100 microlitre
Programmable Steps and cycles	Yes
No of USB ports	2 or more
Pause/start function	Yes
Input power supply	Single phase (230 V, 50Hz)
Auto restart after power outages	Yes
Boot up time	≤ 1 minute
Type of chemistries that can be run on system	Taqman, SYBR green, Molecular beacon and all other fluorescent dye based
Compatibility for well strips	8
Compatibility for Individual PCR tubes	0.1-0.2 ml tubes
Source of Excitation	Tungsten/ Xenon/ LED/ Halogen
Detection	Cooled CCD/ Photo diode/CMOS/PMT
Number of excitation filters	≥ 5
Number of emission filters	≥ 5
Multiplexing ability dyes in a single run	≥ 5
Pre calibration with at least 7 commonly used dyes	FAM/ SYBR Green/ VIC/ HEX/NED/ TAMRA/ROXD/TEXAS RED/ JOE/Cy5/Quasar 670/Cy5.5/ Quasar 705/Cy3

Addition of new dyes should be possible without hardware change	YES
Analysis performed	Gene expression+Plusminus assay+ SNP+Allelic Discrimination and Dissociation curve analysis+ DNA Quantitation+ Gene Expression Analysis+ Comparative analysis curve+ Standard Curve+Relative Standard curve+Capability for calculating dilution & reaction set uo for HID kits+Sample Quality Assessment
Instrument software should not restrict number of assay or target that can be run on a single 96 well plate in parallel	Yes
Suitable software for Data Acquisition, analysis of run and also for Gene Expression analysis by relative quantity or normalized expression	Yes
Software should have the capacity to analyse data of minimum 10 different runs at a time	Yes
The instrument software must be capable of detecting and analysing a different gene, SNP or pathogen target in every well of the 96-well plate	Yes
Temperature setting accuracy (degree Celsius)	± 0.3 or better
Well to well temperature uniformity (degree Celsius)	± 0.4 or better
DATA MANAGEMENT SYSTEM	
Computer system with latest licensed operating system and antivirus provided	Yes
PC monitor type	LCD/LED
Minimum PC monitor size (inches)	15 inches or more
PC hard disk	500GB or more
UPS with power backup (Minutes) (minimum)	60 minutes or more
CERTIFICATIONS	
Compliance to Medical Device Rules (MDR) 2017 as amended till date	Yes
Availability of valid Medical Device license for the product issued from the competent authority defined under Drugs and Cosmetic Act 1940 and Rules made there under as amended till date	Yes

Valid Medical Device License Number	As applicable
Certification for manufacturing unit	ISO:13485 (Latest)
Availability of Test Report for each supplied batch/product as per Medical Device Rule (MDR) 2017 as amended till date	Yes
Submission of all necessary certifications, licenses and test reports to the buyer at the time of bid submission or along with supplies as per buyer requirement	Yes
Electrical Safety Compliance Standard	IEC 60601 or Equivalent BIS
WARRANTY	
Warranty in Years (Option of comprehensive warranty is available through bidding only, which if opted will supersede normal warranty in the catalogue)	≥ 5 Years

Additional specifications-

- Minimum 5 years warranty for machine and PC separately.
- One start up kit and consumable of each parameter and all other accessories required for training and IQ, OQ and PQ compliance to be provided by the bidder free of cost.

28. Refrigerated Centrifuge

(GeM Nomenclature: Refrigerated Centrifuge for General and Research Purpose)

Standards	
Conformity to standards	European CE (Notified Body) With 4 Digit Notified Body No./ BIS/ ICMED 13485 plus/ EN/UL/IEC 61010-02-020 and 61010-2-101
Certificate date and number	As applicable
Performance Parameters	
Purpose	To Centrifuge different kinds of samples in different testing laboratories and research labs at Room temperature/ Research and routine purpose
Centrifuge design	Bench top
Maximum RPM with no load	20000
RPM setting accuracy	Plus minus 5%
Type of Motor	Brushless (without carbons)
Accessories	Spanner to tight or loose Nut of Rotor on Motor shaft head puller, spare rotor nuts, fuse-2, Instruction Manual Book, installation CD printed English user manual corrosion resistance oil (70009824) power cord declaration of conformity
Type of lid lock	Electronic lid locking with automatic lid opening at end of run
Maximum Noise level when working at 1 meter distance in dB	≤ 60db
Ambient operating Temperature range in Degree centigrade Celsius and humidity range	0 to 50 and Relative Humidity 15 to 90%
Rotor imbalance diagnostics and automatic stop if required	Yes
No of acceleration and deceleration profiles in built for rotor speed while automatic braking	Acceleration and deceleration profile- 9/10
Maximum timer set point	60 minutes
Parameters to be displayed by the digital display	RPM/RCF/Set time/ Run time/ Rotor running indication, imbalance if any

Display Type	LCD
Speed controller	Microprocessor controlled pre-programmed speed controller which can control RPM as well as RCF
Temperature controller	Microprocessor controlled based PID digital temperature controller cum indicator, (with LCD display) to control the temperature
Configuration of Rotor supplied with centrifuge machine	Swing out and Angle rotor
Rotor Feature with reference to Autoclavability	Autoclavable rotor at 121 °C
Type of Tubes which can be used with centrifuge machine	Polypropylene centrifuge tubes and glass centrifuge tubes
Size of rotor supplied with centrifuge in ml	(two rotors)"24x1.5ml (for angle rotor) RPM 16000"or "24X2 ml (for angle rotor) RPM 16000"and 2 micro plates of 96 wells each (for swing out type or angle rotor RPM 3500)
Power supply	220 – 240 Volts 50 Hz
Length of Power cord in meters	3 meters or more
Refrigerant should be CFC free	Yes
Temperature of refrigerator in degree Celsius	Upto -20°C
Cooling arrangement	Compressor cooling
Temperature control accuracy	±2°C
Warranty period for equipment & Rotor (on site and comprehensive warranty) in years	≥5 Years
Maximum Noise level when working at 1 meter distance in db	≤ 60
Material Parameters	
Assembly Material for manufacture of Centrifuge	Die cast aluminum, aluminum sheet, stainless steel, CRC steel, Plastic and Rubber
Lid Material of Centrifuge	CRC steel finish with powder coating or stove painting or ABS plastic of injection moulding
Body material of Centrifuge	CRC steel finish with powder coating or stove painting
Front Panel of centrifuge	CRC steel finish with powder coating/ stove painting or ABS plastic of injection moulding
Centrifuge Bowl material in Centrifuge	Double walled with PUF insulation to avoid loss of cooling. Inner chamber of 304 quality stainless steel moulded

Material of Rotor	Aluminium
Additional Parameters	
Condensed Water Drainage System	Yes
The Equipment shall be installed and demonstrated before Acceptance	Yes
Servo Controller Voltage Stabilizer supplied with Item	Yes
Servo stabilizer ratings in KVA	2 KVA
Warranty of stabilizer in years	≥5 years
Auto cut off	Yes
Timer provided	Yes
Reports	
Certifications of Manufacturer	ISO 9001:2015
ISO Certificate date and number	As applicable
Copies of all certifications and reports to be provided to buyer on demand at time of supplies	Yes

29. VDRL Shaker

(Gem Nomenclature: Reciprocal Shakers - Mechanical Shaker Machine with Timer)

PRODUCT CONFIGURATION	
Purpose	Kahn racks, bottle or conical flasks of different sizes cab be shaken by adjusting the compartments provided on the shaking rack
Shaking time control.	Automatic digital ON/OFF timer
Speed measurement	Digital OPM/speed meter
Proximity switch.	Yes
Platform Width	20-30 centimetre
Platform Length	25-35 centimetre
Shaking	Reciprocating type/Rotating
Material: mild steel sheet duly power coated and top surface covered with non-slip mat	Yes
Heavy duty electric motor for continuous rating	Yes
Power Requirements	220V 10,50Hz AC
Speed range	Variable from 70 to 300 oscillations per minute.
MAXIMUM Shaking Load (in Kilogram) permissible	20-40
Suitable for Operating temperature and RH	0 to 50 degree C, 0 to 90% Relative Humidity
CERTIFICATION	
Availability of Test Reports (TO BE FURNISHED BY SELLER TO BUYER ON DEMAND) of the product from Central Govt/NABL accredited Lab showing compliance to the specification	Yes
Test Report details: Number, Date of issue, Name and address of issuing Laboratory	Yes

30. **Vertical Autoclave**

GENERAL FEATURES	
Product Name	Vertical Autoclave
Purpose	For sterilization/disinfection/pre-treatment of medical, laboratory and surgical wastes
PRODUCT INFORMATION	-
All piping material	SS 304/SS 316/ SS 316 L or better
Sterilizer chamber capacity (usable volume) (Litres)	100 or more
Wall type	Double walled
Sterilizer chamber material	Double walled made of SS 304/SS 316/ SS 316 L
Working Pressure of Chamber (PSI)	15 to 20
Type of Sterilizer Chamber Door	Radial locking
Sterilizer Chamber door material	SS 304/SS 316/ SS 316 L
Sterilizer Chamber door locking facility	Yes
Sterilizer Chamber door operation	Manual
Door sealing suitable to withstand temperature up to 140 degree Celsius & pressure up to 20-30 PSI	By Neoprene Rubber gasket
Controller type	Digital timer controller with end cycle buzzer/ Microprocessor PID Controller
Digital pressure display	LCD/LED/TFT
Minimum Display Size (Inches)	≥5 inches
Temperature sensor range (degree Celsius)	100 to 300
Audio - visual Alarm facility available for notifying	Low water alarm system as well as steam release valves and safety valves Cut off automatically when the autoclave is dry
Working temperature (degree Celsius)	121- 135
Working pressure (PSI)	15 to 22
Power supply	220 to 240V, three phase
Print records facility	Yes
Water level indicator	Yes
Water inlet & outlet	Yes
Automatic pressure control switch	Yes
Manual Water Filling & Removal	Yes
Unit having a heater fitted at the bottom and with capacity	≥ 3KW
CERTIFICATIONS	

Compliance to Medical Device Rules (MDR) 2017 as amended till date	Yes
Availability of valid Medical Device license for the product issued from the competent authority defined under Drugs and Cosmetic Act 1940 and Rules made there under as amended till date	Yes
Valid Medical Device License Number	Yes
Certification for manufacturing unit	ISO:13485 (Latest)
Availability of Test Report for each supplied batch/product as per Medical Device Rule (MDR) 2017 as amended till date	Yes
Submission of all necessary certifications, licenses and test reports to the buyer at the time of bid submission or along with supplies as per buyer requirement	Yes
Electrical Safety standards	IEC 60601 or equivalent to BIS
Autoclave (Vertical) design and manufacturing conforms to IS 3829	Yes
WARRANTY	
Warranty in years (Option of comprehensive warranty is available through bidding only, which if opted will supersede normal warranty in the catalogue)	≥ 5 years
Calibration including thermal mapping and pressure gauge	Annually

31. Vortex Mixer

Warranty	
Warranty on machine	≥ 5 Years
Discretion	
Type of Drive Motor	Brushless DC Motor
Display Option/Output Read out Option	Digital
Material of Mixing Head/vortex cup	Rubber
Type of Vortex Mixer	Mini Vortex Mixer/Standard Vortex Mixer
Type of Controller	Microprocessor Controlled
Timer setting increment steps	1 minute
Base material	Die cast aluminium
Number of Sample tubes testable simultaneously	Multi-tube
User Interface	Digital Front panel without Glove mode/ Digital Front panel with Glove mode
Largest Volume of the tube testable	>=200 millilitre
Finish of Body material	Powder coated/Electro plated
Body material	Die cast Aluminium
Maximum Load capacity	should be >=0.1 kg
Features	
Activation mode	Press Activated and Continuous run
Speed mode	Variable Speed
Number of Programmable/Programmed modes	1
Maximum speed (RPM)	≥3000
Minimum Speed (RPM)	≥300
Timer Provided	Yes
Pulse mode	Yes
In built Counter balance	Yes
Programmable Pulse mode	Yes
Speed control Accuracy (+/-) (RPM)	0-50
Suction Cup in the base	Yes
Auto Cutoff	Yes
Dimensions	
Orbital Diameter	2-6 millimeter
Power	
Input Voltage (V) with number of Phases	AC 100-240 volts single phase
Certifications	
Availability of test report (to be furnished to	Yes

Buyer by Seller on demand of the former) from NABL/ILAC/Govt laboratory	
Test Report Number and date	As Applicable
Name and address of the Lab issuing test report	As Applicable
Product CE certified	Yes
Firm certified to ISO9001:2008 or latest	Yes
If CE certified, EN/IEC directives	-
Operating Parameters	
Ambient operating Temperature (0 to 50 Degree Celsius)	Yes

32. Water Bath

Water Bath Chamber Dimensions, Capacity and Construction	
Water bath Chamber Capacity	10 to 14 litre
Chamber Construction	Double walled rectangular chamber/Double walled rectangular chamber with mineral wool/ solid insulation material filling in between
Material of inner Chamber and lid Construction	Stainless steel 304
Material of Outer Chamber Construction	Epoxy/powder coated stainless steel 304
Number of racks provided with Water bath unit	At least 2 racks
Number of 75 mm diameter Holes provided	At least 6
Heating Arrangement Parameters	
Heat source	Heating shall be done by an immersion heater
Heating Capacity (>=)	≥ 800 Watt
Control Panel and Display Unit	
ON/Off Switch	Yes
Heating & Temperature (Set & Actual) Indicators	Yes
Power mains Indicator	Yes
Temperature controller	Yes
Circulation Controller (if Water bath has circulation facility)	Yes
Shaking Controller (if Water bath has shaking facility)	Yes
Adjustable shaking frequency in rpm	20-200/NA
Type of Temperature controller	Digital controller cum indicator PID Based control
Water bath Display type	Digital (numerical/application specific) backlight LCD display/ LED
Integrated circulation pump for temperature homogeneity	Yes
Removable bottom plate and shaking inserts	Yes
Water bath Temperature	
Temperature range of bath chamber	5°C above ambient to 99.9 °C
Temperature control sensitivity	≤ 0.5°C
Least temperature increment Step available	≤1 degree Celcius
Temperature Accuracy	≤ 0. 1°C
Safety Features	Low fluid Alarm, High limit

	Alarm, Over temperature Alarm & cut-off, Redundant safety thermostat
Power Requirement, Certifications and Warranty	
Power requirement	220V 50Hz Single phase AC
Availability of Test Report from Central Govt/NABL/ILAC accredited lab to prove conformity to specification	Yes
Manufactured by ISO 9001:2008 or latest certified firm	Yes
Equipment has CE certification	Yes
Warranty Period	≥5 years
Cover	
Lid/cover Provided	Yes
Shape of Cover	Gable
Timer Provided	Yes
Timer Setting (minimum increment step)	60 seconds
Miscellaneous Features	
Drain plug in Chamber provided	Yes
Data Logging facility through (RS 232/USB/HDMI/Bluetooth etc) to computer available	No
Steel holder for tubes and Flasks provided	No
Drain screw for emptying of water bath	Yes
Seamless and waterproof keypad	Yes

33. Water Purification System

(Gem Nomenclature: Water Purification System With UV (Ultra-Violet Process) Or UV (Ultra-Violet Process)+UF (Ultra-Filtration Process))

Description and Purpose of Machine	The purpose of this machine is to purify water using UV (Ultra-Violet Process) Or UV (Ultra-Violet Process)+UF (Ultra-Filtration Process)
Construction	Aesthetically designed, water purification system having all the necessary components such as UV light and requirement
Features and Performance	
Method of Mounting	Wall mount
Rate of Flow (In LPH) of purified water	50 and above
Input Water Source Connection	Plumber in/ Faucet-Mounted
Type of Water Purification Technology	Generally Conformity to IS 14724 for Ultraviolet (UV)/Generally Conformity to IS 14724 for Ultraviolet (UV))+Ultrafiltration (UF)
Maximum Feed Water TDS (ppm) at which the machine LPH and Guaranteed output water quality is ensured	Upto 500
Guaranteed output water quality	As per IS 10500 or better
Water Storage	Yes
Storage Tank (inclusive in the scope of supply)	Yes
Type of Water Tank / Location	In-built storage tank/external storage tank
Storage Tank Material	ABS/PP Food Grade
Storage Tank Capacity (in Ltr)	20 litres - 50 litres
Power Supply	
Power Supply	230V+-10% single phase
Type of Controller	Fully automatic
Controller and Display Features	Auto cut-off
Service, Warranty, Installation and Commissioning	Yes
Comprehensive warranty for complete unit	≥5 years from the date of satisfactory commissioning of the machine
Number of Visits per Year	2 Nos
Installation and Commissioning inclusive in the scope of supply	Yes

Training and Demonstration	The installation and demonstration of the machine at the consignee place shall be carried out as part of installation and commissioning
Certification / Test Report	Yes
Agreed to the STC of the category	Yes
Type of lab which carried out Test of Complete Product to prove the conformity of product as per Governing Specification	OEM/Govt.Lab/NABL Accredited Lab
Agree to provide all relevant documents Test Report/supporting document /reports etc. if applicable to the buyer at the time of bidding or on demand	Yes

34. Weighing Machine (for BMW)

(GeM Nomenclature: Electronic Weighing Scales)

Type/ Application	
Governing Specification	Generally confirming to IS 9281-(Part-III)[Latest]
Intended Application	The products covered in this category are- electronic weighing system/ electronic weighing machine are generally used for weighing general purpose products /goods commonly sold/ purchased in the market. It includes Electronic postal weighing scale, Electronic Platform type weighing Scale (General Purpose), Electronic Hanging/ Crane weighing scale, etc. The products such as spring type weighing scales, personal weighing scale, mechanical/ Lever type weighing scales, precision weighing scales or micro weighing scales, other scales that are specially used in laboratories/Medical or for weighing precious metals, etc. are NOT covered in this category.
Type of Weighing Scale (Based on Intended Application)	Electronic Platform type Weighing Scale (General Purpose)
Scope of Supply	Weighing system consist of load sensor/cells, associated electronics display, rigid frame and weighing platform etc
Electonic Display/ Processing unit/ Generic	
Rated Load Capacity of weighing scale	Upto 50 Kg or more
Resolution	25-50 gm
Weighing System Accuracy and Class{As per Governing IS} [Percentage of Rated Output (RO))	±0.25 % of RO (Class 3)
Maximum Measurement Time in second	1 sec
Electronic display character size	0.5 inch or better LCD/LED display
Other feature of Electronic Display/ Processing unit	Tare provision Internal Calibration External Calibration Alarm for overload & Malfunctioning
Load Sensor/ Cell	
Load Cell Accuracy and Class{As per the Governing IS)	0.1 % of RO (Class 3)

Safe Overload cell Capacity [Percentage of Rated Load(RL)]	150% of Rated Load
Ultimate Overload	200% of Rated Load
No of load cell	1
Rigid frame and Weighing Platform	
Shape	Square/ Rectangle
Weighing Platform Size	300mm × 300mm or better
Material of Rigid frame	SS
Material and Thickness of Weighing platform sheet	SS 304 (2mm or better)
Calibration Certificate	
Calibration Certificate issuing authority (Issuing date should be more than 3 month prior, at the time of invoicing)	OEM Certificate NABL/ILAC Approved Agency
Valid Calibration Certificate Provided for Each weighing scale Supplied	Yes
Features	
Salient Features	Error/Out of Range Indication, Connectivity with computer along with Ethernet TCP/IP/USB Connectivity module
Operating Temperature Range and humidity	10 to 35 °C & up to 90% RH
Power Requirements	
Power Requirement	Mains operated along with Battery
Power supply/ Battery Type	230V±10%, Single phase AC with Rechargeable battery of 6 Ah or better
Power feature	Overcharging protection
Buyer Specific Requirement	
Weighing system with dimensioning Feature	No- Weighing system is only capable of weighing
Other Buyer specific requirements	Type Test Certificate as per governing specification for given Class including Environment conditions from Regional
Installation and commissioning	Yes provided-Onsite (at consignee location)
Seller Declared Value	
Link of product / product brochure	Yes

Warranty	
Comprehensive Warranty	≥5 Years
TEST REPORT & Certification	
Availability of Test Report from type of Lab, to prove the conformity of product to the specification	OEM Certificate/ NABL Accredited Lab/ILAC Accredited Lab
Agree to provide all relevant documents including supporting document / reports etc, if applicable, to the buyer at the time of bidding or on demand	Yes
Agreed to provide Model approval certificate for each model from Director Legal Metrology at the time bidding or on demand by buyer	Yes
Each weighing machine shall be supplied with calibration certificate under weights and measures ac	Yes

35. Micropipette

(Gem Nomenclature: Manual Single Channel Air Displacement Pipettes)

Features and Sizes	
Type of Micropipette	Variable volume single channel
Material of Piston	Chemically Resistant
Micropipette with spring loaded tip cone	Yes
Autoclavable	Yes
Capacity of Fixed Volume Single Channel Micropipette	NA
Locking Mechanism	Yes
Availability of Digital Volume Indicator	Yes/No
*Minimum Volume of Variable Volume Pipette (Hint: Type NA in Case of Fixed Volume pipette, ul = µl)	0.1 µl /1.0µl/ 10 µl/100 µl
*Maximum Volume of Variable Volume Pipette (Hint: Select NA in Case of Fixed Volume pipette, ul = µl)	1.0µl /10 µl/100 µl/1000 µl
Volume increment (in Ul)	0.1 µl /1.0µl/ 10 µl/100 µl
Calibration Certificate with traceability	Yes
Warranty & CAMC including annual Calibration	Yes

Note: The volume (Minimum and Maximum)*of the pipette has to be selected based on approved "**List of Equipment for State NCDC Branches**" enclosed at **Annexure I.**

36. Multichannel Micropipette

(GeM Nomenclature: Manual Multi Channel Air Displacement Pipette)

Features and Sizes	
Type of Micropipette	Variable volume multichannel
Material of Piston	Chemically Resistant
Micropipette with spring loaded tip cone	Yes
Autoclavable	Yes
Capacity of Fixed Volume Single Channel Micropipette	NA
Locking Mechanism	Yes
Availability of Digital Volume Indicator	Yes/No
Minimum Volume of Variable Volume Pipette (Hint: Type NA in Case of Fixed Volume pipette, ul = µl)*	0.1 µl /1.0µl/ 10 µl/100 µl
Maximum Volume of Variable Volume Pipette (Hint: Select NA in Case of Fixed Volume pipette, ul = µl)*	1.0µl /10 µl/100 µl/1000 µl
Volume increment (in Ul)	0.1 µl /1.0µl/ 10 µl/100 µl
Calibration Certificate with traceability	Yes
Warranty & CAMC including annual Calibration	Yes

Note: The volume (Minimum and Maximum)*of the pipette has to be selected based on approved **"List of Equipment for State NCDC Branches"** enclosed at **Annexure I.**

IT Equipment - Technical Specifications

1. Desktop PCs

Parameters	Model Specifications		
	Entry-Level	Mid-Level	High-End
Processor	AMD Ryzen 3 5300G/ intel Core i3 12100	AMD Ryzen 5 5600G/ intel Core i3 12400	AMD Ryzen 7 5700G/ intel Core i3 12700 or Higher
RAM	Minimum 16 GB DDR4, with support of suitable slots to expend memory upto 16GB or more	Minimum 16 GB DDR4, with support of suitable slots to expend memory upto 32GB.	Minimum 16 GB DDR4, with support of suitable slots to expend memory upto 64GB or more
Memory Size	Minimum 500 GB HDD or 500 GB SSD (Nvme)	Minimum 500 GB HDD & 500 GB SSD (Nvme)	Minimum 1 TB SSD (Nvme)
Chipsets	Compatible chipsets as per processors make		
DVD	Optional		
Display size (Monitor)	19" WTFT or Higher		
Display type	LED		
Keyboard	Wired/Wireless		
Mouse	Wired/Wireless		
Cabinet	MT/SSF		
SMPS	180-250W		
Speaker	1 Internal Speaker		
Ports	Minimum 6 USB, VGA/HDMI/DP, LAN		
OS	Windows/Linux		
Certification	BIS, BEE,EPR, RoHS or any other relevant Indian Certificates		

2. UPS

Centralized UPS System (for 3 or more computers 1KVA for every 3 computers	Rating in KVA	1.0KVA minimum or higher
	Technology	IGBT-PWM without inbuilt Isolation Transformer
	Input Power	Single phase 160vV-260V sine wave 50 Hz
	Output Power	Single phase 230 ±1%

Pallavi

3. **Specification for Multifunction Printers**

S.No	Specification	Bid Requirement (Allowed Values)
1	Print Technology	Laser
2	RAM Size (MB)	512 or higher
3	Type of Printing	Mono
4	Resolution	600 x 600 dpi or higher
5	Duplexing Printing	Automatic duplex printer (DADF) or higher
6	Simplex Printing Speed (A4)	32 ppm or above
7	Standard function	Print, Copy, Scan
8	Paper Tray Capacity	250 pages
9	Media Type	Plain Paper, Heavy Paper, Transparency, Label, Index Card, Envelope.
10	Media Sizes	Legal & A4
11	Duplexing Printing	Legal, A4 & Letter
12	Scanner	Flatbed and duplex ADF Scanning (DADF), Scan to email
13	Resolution (For Scanner)	600 x 600 dpi or higher optical
14	Interface	USB 2.0, Hi-speed or more 10/100 Base-T Ethernet (Network), Wifi 802.11b/g/n
15	Operating System Drivers to be provided for	Windows 2000/Server 2003, 2008, 2012/Linux, MAC OS, Windows 11 (all 32 and 64 bit both) or later, MAC OS
16	Duty Cycle	Minimum 8000 pages per month
17	All-in-One Cartridges	Based on ISO/IEC 19752 standard Printer ships with minimum 1000 - page starter cartridge
18	Flatbed Size	Legal
19	BIS Registration/BIS Catalogue	BIS registration of the product is must
20	Environmental Compliance	Energy star, RoHS certified
21	On Site OEM Warranty	Minimum 5 Years OEM Comprehensive warranty including all parts (except toner cartridge) with onsite support. The Device should not be declared end of life by OEM at the time of purchase.
22	Service Centre	OEM Service centre should be in India and support should be available at local level of the indenting offices.
23	Cartridge Technology	Separate Drum and Toner
24	Original Document Feeder Type	DADF or higher
25	Hard Disk Capacity (GB)	0 or higher
26	Minimum Speed per Minute as per ISO/IEC 24734 in A4 Size-Colour	0 or higher
27	Faxing Feature Availability	No
28	Bypass Facility	Yes
29	Life of Drum in terms of number of Prints in case of Separate Drum and Toner cartridge technology - Black (Number of Prints)	40000 or higher
30	Wi fi type	Wi fi 802.11 b/g/n & Wi Fi Direct
31	No of Main Paper Tray	1

Pallavi

4. **Multi-Functional Printer (color) Print/Scan/Copy-Fax (optional)**

Multi-Functional Printer (color) Print/Scan/Copy-Fax (optional	Print technology	Laser/Ink
	Type of Printing	Colour
	Type of machine	Multifunction
	Paper Size (Original: Image)	A4:A4
	Flatbed Size (Platen)	Legal
	Print Speed (Mono)	Minimum 25 PPM
	Print Speed (Colour)	Minimum 25 PPM
	Duplex feature	Yes (Auto)
	Scanning Feature	Yes
	Networking Connectivity	Yes
	USB Port	Yes
	Duty Cycle	Minimum 5000 per month
	Onsite OEM Warranty	Minimum 5 years
	Wireless Connectivity	Optional

Gmail NPMU <npmu.ncdc@gmail.com>

Request for Concurrence on IT Equipment Technical Specifications

2 messages

NPMU <npmu.ncdc@gmail.com> Wed, May 21, 2025 at 5:45 PM
To: jitesh.kuwatada@ncdc.gov.in
Cc: aarti.tewari@gov.in, dr.hemlata1306@gmail.com

Please find attached the technical specifications for the proposed IT equipment, including Desktop PCs, UPS, Multifunction Printers, and an optional Color Multifunction Printer.

You are kindly requested to review the enclosed specifications and provide your concurrence at the earliest.

IT Equipment Technical Specfications.pdf
926K

Jitesh Kuwatada <jitesh.kuwatada@ncdc.gov.in> Wed, May 21, 2025 at 6:39 PM
To: npmu ncdc <npmu.ncdc@gmail.com>
Cc: AARTI TEWARI <aarti.tewari@gov.in>, dr hemlata1306 <dr.hemlata1306@gmail.com>

Dear Madam,

Thanks for sharing. I hereby concur to the attached specifications.

Thanks and regards

Dr Jitesh Shamsundar Kuwatada (MBBS, MD)Assistant Director Centre for One Health, National Centre for Disease Control (NCDC)Directorate General of Health Services Ministry of Health and Family WelfareGovt. of India Delhi-110054Contact: +91-9766702271

[Quoted text hidden]

CAUTION
This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

ANNEXURE- V

Sl .no	Furniture Requirements for NCDC Branches	No
	Ground floor	
	Admin	
A	Revolving Chair with Knee tilt mechanism	14
O	Computer Desk/ Unbranded Modular Work Stations with Single Seater Rectangular Cluster	10
L	Stack 2 Door Engineered Wood Wardrobe	4
K	Steel Almirah	2
	PA	
A	Revolving Chair with Knee tilt mechanism	1
O	Computer Desk/ Unbranded Modular Work Stations with Single Seater Rectangular Cluster	1
E	Office chair with armrest	3
K	Steel Almirah	1
C	Unbranded Sofa Sets, Number of seats (3)	1
H	Unbranded Rectangular CENTRE TABLE with Tempered glass Top of 1194mmX584mm	1
	In-charge	
I	Executive Table	1
A	Revolving Chair with Knee tilt mechanism	1
A	Revolving Chair with Knee tilt mechanism	3
F	Sofa Sets, Number of seats Number of seats (3+2)	2
H	Rectangular CENTRE TABLE with Tempered glass Top of 1194mmX584mm	1
L	Door Engineered Wood Wardrobe	2
	Lift place	
E	Office chair with armrest	2
	Security	
A	Revolving Chair with Knee tilt mechanism	2
J	Office Table	1
	Reception	
M	Reception Counter Table	1
A	Revolving Chair with Knee tilt mechanism	1
R	3 seater steel chair without Arms	2
	Canteen	
U	Table and chair for canteen	4
	Sample collection	
S	Phlebotomy chair	1
A	Revolving Chair with Knee tilt mechanism	4
E	Office Chair with armrest	2

B	Lounge chair with foot rest	3
	Waiting area	
A	Revolving Chair with Knee tilt mechanism	1
R	3 seater steel chair without Arms	6
	First floor	
	Epidemiology computer lab	
A	Revolving Chair with Knee tilt mechanism	12
O	Computer Desk/ Unbranded Modular Work Stations with Single Seater Rectangular Cluster	12
L	Door Engineered Wood Wardrobe	4
K	Steel Almirah	2
	Diagnostic Entomology lab	
J	Office Table	1
A	Revolving Chair with Knee tilt mechanism	1
E	Office chair with armrest	2
B	Lounge chair with foot rest	2
T	Laboratory Workstation STORAGE CABIN	4
	Consultant rooms (5)	
J	Office Table	5
A	Revolving Chair with Knee tilt mechanism	5
A	Revolving Chair with Knee tilt mechanism	10
L	Door Engineered Wood Wardrobe	5
	Lift place	
E	Office chair with armrest	2
	Vector colony	
J	Office Table	1
A	Revolving Chair with Knee tilt mechanism	1
E	Office chair with armrest	2
B	Lounge chair with foot rest	2
T	Laboratory Workstation STORAGE CABIN	3
	Insectiside testing lab	
J	Office Table	1
A	Revolving Chair with Knee tilt mechanism	1
E	Office chair with armrest	2
B	Lounge chair with foot rest	2
T	Laboratory Workstation STORAGE CABIN	3
	Conference	
N	Conference table (7+7)	2
A	Revolving Chair with Knee tilt mechanism	15
E	Office chair with armrest	10
D	Wall Mounted Case or Storage Unit with 2 doors	4
K	Steel Almirah	1

J	Office table	1
Q	Projector with screen	1
	Public Health Wing	
N	Conference table (4+4)	2
D	Wall Mounted Case or Storage Unit with 2 doors	4
Q	Projector with screen	1
A	Revolving Chair with Knee tilt mechanism	9
O	Computer Desk/ Unbranded Modular Work Stations with Single Seater Rectangular Cluster	1
L	Door Engineered Wood Wardrobe	2
Q	Projector with screen	1
K	Steel Almirah	1
	Lab Store	
J	Office Table	1
V	Storage Rack	8
E	Office Chair with armrest	2
	Cold Room	2-8oC
W	Racks	2
	Second floor	
	Molecular Labs (3 labs)	
P	Stainless Steel Fixed With Foot Rest Stool	9
E	Office chair with armrest	3
	HOD room	
A	Revolving Chair with Knee tilt mechanism	1
G	CENTER TABLE Rectangular CENTRE TABLE with Flat glass Top of 1000mmX650mm	1
I	Executive Table	1
A	Revolving Chair with Knee tilt mechanism	3
F	Sofa Sets, Number of seats Number of seats (3+2)	1
H	Unbranded Rectangular CENTRE TABLE with Tempered glass Top of 1194mmX584mm	1
L	Door Engineered Wood Wardrobe	1
K	Steel Almirah	1
	Lift place	
E	Office Chair with armrest	2
	Serology	
A	Revolving Chair with Knee tilt mechanism	3
B	Lounge chair with foot rest	3
	Biochemistry	
A	Revolving Chair with Knee tilt mechanism	3
B	Lounge chair with foot rest	3
	Culture and sensitivity	
A	Revolving Chair with Knee tilt mechanism	3

P	Stainless Steel Fixed With Foot Rest Stool	3
	Media	
A	Revolving Chair with Knee tilt mechanism	3
B	Lounge chair with foot rest	3
	Sterilization	
P	Stainless Steel Fixed With Foot Rest Stool	2
	BSL-2 (2 labs)	
P	Stainless Steel Fixed With Foot Rest Stool	6
	Seminar room	
D	Wall Mounted Case or Storage Unit with 2 doors	1
X	Chair Frame type Legs Full Writing pad Studs	30
B	Lounge chair with foot rest	6
J	office Table	1
	Total	325

Compiled list (Branches)

Sl .no	Furniture list	No. Required
A	Revolving Chair with Knee tilt mechanism	97
B	Lounge chair with foot rest	24
C	Unbranded Sofa Sets, Number of seats (3)	1
D	Wall Mounted Case or Storage Unit with 2 doors	9
E	Office chair with armrest	32
F	Unbranded Sofa Sets, Number of seats Number of seats (3+2)	3
G	CENTER TABLE Rectangular CENTRE TABLE with Flat glass Top of 1000mmX650mm	1
H	Unbranded Rectangular CENTRE TABLE with Tempered glass Top of 1194mmX584mm	3
I	Executive Table	2
J	Office table	12
K	Steel Almirah	8
L	Door Engineered Wood Wardrobe	18
M	Reception Counter Table	1
N	Conference table (7)	2
N	Conference table (5)	2
O	Computer Desk/ Unbranded Modular Work Stations with Single Seater Rectangular Cluster	24
P	Stainless Steel Fixed With Foot Rest Stool	20
Q	Projector with screen	3
R	Mild Steel Silver 3 seater Bliss Metal perfo without Arms,	8
S	Phlebotomy chair	1
T	Laboratory Workstation STORAGE CABIN	10
U	Table and chair for canteen	4
V	Storage Rack for stores	8
W	Racks	2
X	Chair Frame type Legs Full Writing pad Studs	30
	Total	325

Specifications of furniture for NCDC State Branches

No	Furniture Name	Specifications
A	Revolving Chair with Knee tilt mechanism	
B	Lounge chair with foot rest	
C	Unbranded Sofa Sets, Number of seats (3)	
D	Wall Mounted Case or Storage Unit with 2 doors	
E	Office chair with armrest	
F	Unbranded Sofa Sets, Number of seats Number of seats (3+2)	

G	CENTER TABLE Rectangular CENTRE TABLE with Flat glass Top of 1000mmx650mm	
H	Unbranded Rectangular CENTRE TABLE with Tempered glass Top of 1194mmx584mm	
I	Executive Table	
J	Office Table	
K	Steel Almirah	
L	Door Engineered Wood Wardrobe	

M	Reception Counter Table	
N	Conference table	
O	Computer Desk/ Unbranded Modular Work Stations with Single Seater Rectangular Cluster	
P	Stainless Steel Fixed with Foot Rest	
Q	Projector with screen	

R	Mild Steel Silver 3seater Bliss Metal Perfo Without Arms	
S	Phlebotomy chair	
T	Laboratory Workstation (STORAGE CABIN)	
U	Table and chair for canteen	
V	Storage racks for stores	
W	Racks	

X	Chair Frame Type Legs Full Writing Pad Studs	

National Centre for Disease Control (NCDC)
22- Shamnath Marg, Civil Lines, Delhi- 54

Subject: Technical Specification of Equipment proposed at NCDC Regional branches reg.

1. This is in reference to office order no. 1-1/2024-NCDC-Branches (8291346) dated 28.03.2025. A committee was constituted for finalization of furniture & fixtures and equipment for state NCDC branches and Regional NCDC branches.

2. The following members attended the meetings on 27.05.2025 and 28.05.2025.
   i. Dr. Aarti Tewari (Chairperson), Joint Director & OIC (CA&ZD), NCDC Delhi
   ii. Dr. Shubha Garg, Joint Director, NCDC Delhi
   iii. Dr. Hemlata Lall, Joint Director, NCDC, Delhi
   iv. Dr. Anupam Kumar Anveshi, Assistant Director, NCDC, Delhi
   v. Dr. E. Kavitha, Assistant Director, NCDC, Delhi
   vi. Dr. Vikash Ranjan, Assistant Director, NCDC, Delhi
   vii. Dr. Ashna Bhasin, Assistant Director, NCDC, Delhi
   viii. Dr. Iyyappan V, DAD (Entomology), NCDC, Delhi- Co-opted member from CME-VM

3. Committee finalized the **List of equipment** for NCDC Regional branches (enclosed at **Annexure: I**) and **Room wise list of equipment** for NCDC Regional branches to provide guidance for room wise placement of equipment (enclosed at **Annexure: II**).

4. All equipment which were proposed for NCDC state branches, had been kept for NCDC regional branches as well, hence specifications of all such common equipment (common between NCDC state and regional branches) may be taken from **"Detailed Technical Specifications of Equipment for NCDC State Branches"** submitted to NPMU on **19.05.25.**

5. The specification of equipment that proposed specifically for NCDC Regional Branches , were finalized and listed below-

i. Conventional PCR machine
ii. Gel documentation system
iii. Horizontal electrophoresis machine
iv. Dark field microscope
v. Fluorescent microscope
vi. *Automated bacterial identification and susceptibility testing system
vii. *Automated blood culture system

(**Detailed Technical Specifications** of above seven equipment are enclosed at **Annexure: III**)

* High-end equipment namely Automated Bacterial Identification and Susceptibility Testing System and Automatic Blood Culture System have also been kept under the 2nd phase of procurement for NCDC State branches, only after ensuring the availability of funds, scope and functionality of NCDC branches in their respective States, following the installation of other essential equipment.

Annexure: III

General Specifications (To be applicable with all equipment):

1. Bidders are to submit original manufacturer's product catalogue/ brochure for quoted model in English language. Provided catalogue /brochure should be present on the firm/manufacturer's website. Instant preparation of the desired catalogue or brochure based on the specification provided in the bid document and its onward submission may disqualify the bidder without any further communication.

2. 5 years back-to-back warranty followed by 5 years CAMC to be provided along with free calibration every year during warranty and CAMC wherever applicable.

3. Equipment should be delivered free of cost at site including loading/unloading. Installation, commissioning, testing and configuration which should include training and free of cost IQ, OQ and PQ. Training wherever is applicable as per scope of supply is to be carried out by OEM/OEM certified resource or OEM authorised reseller.

4. At least 3 supply orders of the quoted model of desired equipment, supplied to reputed health institute/hospitals (Central Government/State Government/PSU) in the past 3 years should be provided along with bid.

5. A list of users (containing minimum 3 users) and at least 3 satisfactory installation and satisfactory performance reports (separately) of quoted model from reputed health institute/hospitals (Central Government/State Government/PSU) should be made available.

6. The principal manufacturer must have direct presence/approved service centre in the city of installation of equipment/nearest metro city to the site of installation. They should provide a complete postal address of service centre with contact details including email ID and Toll-Free Number (24X7) and escalation matrix along with the bid.

7. Downtime commitment for providing service is to be restricted to maximum period of 48 hours if the service centre is present in the city of installation and 96 hours if service centres is in the nearest metro city to the site of installation.

8. All electrical peripherals and accessories required for smooth functioning of the equipment eg. Voltage stabilizer and UPS should be provided with the equipment wherever applicable.

9. All electrical supplies should be operable at 230+/- 10V, 50Hz.

10. The equipment should be complied with ISI/ISO/US-FDA/CE standard (mandatory 4 digit notified body number with compliance directive or legislation and tracing link) and other standards as applicable.

11. The manufacture or the dealer must not be blacklisted in any government institute.

12. Failure of submission of desired certificate or report or submission of any forge or counterfeit certificate or report may disqualify the bidder without any further communications.

I. Conventional PCR Machine (Thermal Cycler) specifications

(GEM Nomenclature- Qualitative PCR Machine)

General Information	
Product Description	Qualitative PCR Machine (Thermal Cycler)
Purpose	Qualitative PCR Machine (Thermal Cycler) is a device used for amplifying and analysing DNA or RNA samples
Product Information	
System Type	Open
Display Type	LCD/LED/TFT
Maximum Heating Ramp rate in degree per second (°C/s)	5°C/s or above
Maximum Cooling Ramp rate in degree per second (°C/s)	4°C/s or above
Adjustable Heating / Cooling Ramp Rate	Yes
Operating Temperature range in Degree Celsius	4-105 degree Celsius
Hot Lid Temperature	30-110 degree Celsius
Compatibility for Well Strips	8 Well Strips
Compatibility for Individual PCR tubes	0.1 to 0.2 ml tubes
Input power supply	Single phase (230 V, 50 Hz)
Compatible to be used with PC	Yes
Availability of USB ports	2 or more
Battery backup of UPS (in hours)	1 or more
Boot up time	≤1 minute
Certifications	
Compliance to Medical Device Rules (MDR) 2017 as amended till date	Yes
Availability of valid Medical Device license for the product issued from the competent authority defined under Drugs and Cosmetic Act 1940 and Rules made there under as amended till date	Yes
Valid Medical Device License Number	As applicable
Certification for manufacturing unit	ISO:13485 (Latest)
Availability of Test Report for each supplied batch/product as per Medical Device Rule (MDR) 2017 as amended till date	Yes
Submission of all necessary certifications, licenses and test reports to the buyer at the	Yes

28.5.25

time of bid submission or along with supplies as per buyer requirement	
Electrical Safety Compliance	IEC 60601-1-2 or Equivalent BIS
Warranty	
Warranty in Years (Option of comprehensive warranty is available through bidding only, which if opted will supersede normal warranty in the catalogue)	≥5

Additional Specifications:

- Independently controlled, interchangeable 96 X 0.2 ml well format, gradient ranging 30-100°C, able to work with PCR volume range 5-30µl or more.
- The system should have a well to well temperature accuracy of ± 0.3°C or better and uniformity of ± 0.4°C or better.
- The system should have operation menu derived by touch screen.
- System should auto start after power outage.
- The software should have exportable run logs and system error logs with expandable memory to store minimum 1000 programs.
- The system should be supplied with latest configuration laptop (Windows10/11 whichever latest, 11th generation, 3.5GHz, intel core i7 processor, min 16 GB DDR4 RAM, min 15" LED/TFT touch screen display, min 500 GB hard disk, option to protect files with optional log-in, restricted user privileges and secured mode for controlled environment), 2 KVA or better online UPS and stabilizer.
- 5 years warranty for both machine and laptop separately.
- One startup kit and consumables of each parameter and all other accessories required to function should be supplied by the firm free of cost for the training and installation purpose.
- BIS/CE-IVD/ US-FDA certified.

ii. **Gel Documentation System**

Standards	
Certification for product	CE/USFDA/CDSCO/BIS
Certification date and number	Yes
Quality system certifications of manufacturer	ISO 13485 and 9001/ICMED 13485 and ICMED 9001
Conformity to standard for electrical safety latest amendment	IEC 60601-2-40 OR BIS equivalent
Performance Parameters	
Purpose	Equipment widely used in molecular laboratories for the imaging and documenting nucleic acid and protein gels after electrophoresis
Camera imager for imaging applications DNA gels Protein gels Fluorescence Colorimetric detection Infrared fluorescence	 Yes Yes Yes Yes Yes
Type of Camera	CMOS/CCD
System should enable detection of picogram levels of sample with chemiluminescence	NO/Yes
Display	LED/LCD/NA/Touch Screen
Machine should have on-board capture and analyse software for ease of use and automation, with PC connectivity and USB connection	Yes
Camera with fixed focus motorized lens	Yes
Cooling Temperature available for the camera in °C	NA
Camera resolution in Mega Pixel (MP)	≥ 6 MP
Should have bright lens, Automatic focusing and calibrations for quantitative blot and gel imaging	Yes
Compact dark room should include	UV transilluminator with white light source/UV transilluminator with white light and blue light source
UV transillumination wavelength (nm)*	254/302/365
Imaging area in cm x cm with tolerance of	15 X 17

±10%	
Machine should include positions motorised filter wheel with suitable filter for EtBr, SYBR Green, Coomassie Blue, Silver Stain	≥5
Sample placement slot should be adjustable as per user requirement and application specific trays for UV, White and Chemiluminescent Blot samples should be provided	Yes
Modes of image capturing	Automatic/Semiautomatic/Manual
Analysis software	1D & 2D
Power supply	220-240, 50 Hz
Image Printing	Yes
Miscellaneous Parameters	
Comprehensive Warranty in years	5
Installation and demonstration to be given before acceptance	Yes
Instruction manual to be supplied	Yes
Number of installations of the Machine machines in Central /State/PSU Govt Hospitals(Note: Seller should supply a performance certificate of the device to the buyer if demanded after placement of order)	Minimum 3
OEM/Reseller (if supplied to reseller shall ensure uninterrupted availability of all spares for 10 years)	Yes
Availability of toll free facility for technical support maintained by OEM or authorized agencies	Yes
User/Technical/Maintenance manuals in original to be supplied in English in hard and soft copy	Yes
Demonstration of equipment and training to be provided after completing supplies before acceptance	Yes
The Principal Manufacturer must have direct Presence/approved service centre In India	Yes
QA, QC and other tests as per NABH shall be carried out by OEM or authorized agency of OEM	Yes

iii. **Horizontal Electrophoresis system**

Standards	
Certification for product	CE/USFDA/CDSCO/BIS
Certification date and number	Yes
Quality system certifications of manufacturer	ISO 13485 and 9001/ ICMED 13485 and ICMED 9001
Conformity to standard for electrical safety latest amendment	IEC 60601-2-40 OR BIS equivalent
Performance Parameters	
Purpose	Equipment widely used for separation of DNA/ RNA on their size (no. of BP)
Length of the Gel tray (cm)	10-15
Width of the Gel tray (cm)	10-25
Number of well combs	4-10
Thickness of comb (mm)	0.5-1
Construction of Unit (Moulded/Fabricated)	Fabricated
Type of Electrodes (Fixed/Removable)	Removable
Provision of gel casting gates for sealing the tray	Yes
Easy replacement of electrode assemblies and lid removal to avoid buffer spillage	Yes
Provision of UV transparent gel trays with florescent ruler	Yes
Power supply unit	
System should be provided with at-least three sets of output terminals to deliver constant voltage or current	Yes
Output range	Voltage: 10- 300V, Current 4-400 mA, Power: 75 Watts or better
Led display for voltage, current, power and time	Yes
Safety feature	Overload/ short circuit detection, Overvoltage protection
Miscellaneous Parameters	
Comprehensive Warranty in years	5
Installation and demonstration to be given before acceptance	Yes
Instruction manual to be supplied	Yes
Number of installations of the Machine machines in Central /State/PSU Govt	Minimum 3

Hospitals(Note: Seller should supply a performance certificate of the device to the buyer if demanded after placement of order)	
OEM/Reseller (if supplied to reseller shall ensure uninterrupted availability of all spares for 10 years)	Yes
Availability of toll free facility for technical support maintained by OEM or authorized agencies	Yes
User/Technical/Maintenance manuals in original to be supplied in English in hard and soft copy	Yes
Demonstration of equipment and training to be provided after completing supplies before acceptance	Yes
The Principal Manufacturer must have direct Presence/approved service centre in India	Yes
QA, QC and other tests as per NABH shall be carried out by OEM or authorized agency of OEM	Yes

iv. Dark Field Microscope
(Not available on GeM portal)

1. Should have an upright microscope stand with perfectly integrated 12V 100W or better LED illumination for a constant color temperature.
2. Should have focusable eyepiece 10x/22mm or better.
3. Should have at least 7-fold coded nosepiece to attach minimum of 7 objectives.
4. Should have specimen holder for multifunctional urine slides, Fuchs-Rosenthal and Makler counting chambers. Also suitable for double size glass slides.
5. Should have mechanical stage for biological application, with ceramic coated plate ≥110° rotation, travel range ≥ 76 x 25mm.
6. Should have the following special dark field objectives -5x/ NA 0.12; 10x/ NA 0.25; 20x/ NA 0.40; 40x/ NA 0.75; 63x/ NA 0.80; 100x/ NA1.25-0.60 oil.
7. Should have automated condenser including normal bright field condenser and special dark field condenser with dry and oil condenser top with an opaque oblique illumination.
8. Power input to be 230 +/-10% VAC; 50Hz fitted with Indian plug; supplied with stabilizer and UPS (offline) with 30 minutes back up.
9. Should have warranty of 5 years and CMC of additional 5 years after the expiry of the warranty period.
10. BIS/ISO/CE/US-FDA certification should be provided.
11. Accessories: Power cord of at least 2-meter, Dust cover, Microscope casing, Lens cleaning tool-kit to be provided free of cost

v. Fluorescent Microscope

(Not available on GeM portal)

1. **Frame:** Rigid and vibrations free frame Illuminator
2. **Optical System:** Infinity corrected system. All optics should be coated anti reflection/ anti fungal treatment.
3. **Illuminator:**
   - Built-in-Koehler illumination for transmitted light of minimum 12V 100W LED (precentered) with motion sensor detects when an operator leaves and automatically turns off the light for long life of bulbs.
   - Built in filters (Blue filter, ND6, ND25 filters)
4. **Eyepieces:** 10X eyepieces with FOV 22-25 mm or more with ± 5 dioptre adjustment for both eyes.
5. **Stage:** Ceramic-coated coaxial stage with right hand low drive control. It should have rotating mechanism and vertical stage movement along with coarse and torque adjustment knobs.
6. **Nosepiece:** Quadruple/ Quintuple revolving nosepiece.
7. **Objectives:** Infinity corrected Plan Achromatic/ Apochromatic or better Objectives 4X/0.1, 10X/0.3/, 20X/0.5, 40X/0.75, 100X/1.4.
8. **Condenser:** Swing out condenser NA 1.25 or better. Fluorescent light field diaphragm with centering and adjustment knob.
9. **Fluorescence Unit:** Fluorescence with 120-130W LED (2000 or more hours) illumination with 4 or more position built in filter Cube Turret.
   At least Basic blue, basic green, UV range excitation filter and one triple band filter for UV/blue/green to be included. Compatible with DAPI/Hoechst, FITC/GFP, TRITC/ Rhodamine, Texas Red dyes, Cy3, Cy5 and similar dyes.
10. **Power Unit:** Power input to be 230 +/-10% VAC; 50Hz fitted with Indian plug; **supplied with stabilizer and UPS** (offline) **with** 30 minutes back up.
11. **Accessories:** Power cord of at least 2 meter, Dust cover, Microscope casing, Lens cleaning tool-kit to be provided free of cost.
12. **Certification:** BIS/ISO/CE/US-FDA certification.

vi. **Automated Bacterial Identification and Susceptibility Testing System**

System specification	
Autoinoculation dispensing volumes*	100ul-150ul
Inbuilt barcode scanner	Yes
Adjustment of brightness & contrast during plate reading	Yes
Method of Susceptibility testing	Broth Micro Dilution method
Interpretation value of susceptibility testing	TRUE MIC, no computed value based on library
System should include automation units for Inoculum standardization Inoculation Reading & interpretation	 Yes Yes Yes
Total sample positions	Atleast 50
Inoculum standardization using Nephelometer	Red & Green LED display
Method of read results	Digital imaging & Visual
Panel specification	
Susceptibility panels	GN, GP, Fungal, and Mycobacteria
Inoculating broth should not contain any colouring dye	Yes
Identification panels	Gram Positive & Gram Negative
Number of additional Reagents required to run each AST panel	2
Number of isolates per panel	Single & Multi-isolate
Panel plate format	96 microtitre wells
Testing panels for ID & AST	Separate panels
Software specification	
Interpretation of MIC should be as per CLSI/EUCAST guidelines	Yes
Digital image capturing & storage	Yes
Panel image capturing for non-fluorescence panels	Yes
Results interpretation of antibiotic sensitivity by software	Yes
Organism library of software system	More than 2000
Warranty	≥5 years
Manufacturer should have ISO certification for quality standards	Yes

Additional Specifications:

1. Automated, high throughput, random access bacterial identification and antibiotic susceptibility testing system requiring minimal manual intervention with turn around time less than 10 hours.
2. The test panel sealing process should be fully automated, irreversible to prevent leakage, blockage or cracking during the process.
3. System must have securely sealed, safe and easy waste disposal feature.
4. If system requires additional reagents, that should be supplied free of cost with detailed information about preparation time wherever applicable.
5. System must have in-built quality control and calibration facility. User intervention for routine QC/ calibrator should not be required.
6. The system consumables & software must be upgradable with the latest EUCAST/ CLSI guidelines.
7. System should be capable of bi-directional interfacing with LIS/HIS (Laboratory/Hospital Information System).
8. Software should have workflow management, test result validation capability and ability to alert unusual resistance mechanisms.
9. Supplier should provide training & support for operating the system. Consumables and accessories should be provided free of cost.
10. System should be supplied with compatible stabilizer and UPS with 30 minutes back up.
11. BIS/ISO/CE/US-FDA certification.

vii. **Automated Blood Culture System**
(Not available on GeM portal)

1. Automated continuous monitoring random access blood culture system with less than 100 sample positions upgradable to high throughput as and when required.
2. Detection should be based on non-radiometric detection technology.
3. System should have resin based Antibiotic Neutralization devices to minimise false negative results.
4. System should have special media bottles available for processing pediatric Samples, low volume sterile body fluid samples and optimal recovery of aerobic, anaerobic organisms, yeast and fungus as and when required.
5. Instrument should have the facility for entering the patient name and sample accession number using in-built bar code scanner with provision for delayed bottle entry.
6. System should have enhanced visual indicators in the form of different colored LEDs indicating exact sample position status – available, ongoing, positive, and negative & anonymous.
7. System should have real time data display using graphical interfaces showing inoculation temperature, growth curves and other relevant data.
8. System must have in-built quality control and calibration facility. User intervention for routine QC/ calibrator should not be required.
9. System should be capable of bi-directional interfacing with LIS/HIS (Laboratory/Hospital Information System)
10. System quoted must be commercially available latest model, must not be obsoleted for atleast 10 years from the date of installation.
11. Non staggered continuous supply of consumables including resin based Antibiotic Neutralizing media bottles must be ensured by supplier till the quoted system is condemned from the user's end.
12. Supplier should provide training & support for operating the system. Consumables and accessories should be provided free of cost.
13. The system consumables & software must be upgradable with the latest EUCAST/ CLSI guidelines
14. System should be supplied with compatible stabilizer and UPS with 30 minutes back up.
15. BIS/ISO/CE/US-FDA certification.

Frequently Asked Questions

1. What is NCDC State Branch?
   NCDC State Branch is an organizational limb of NCDC (HQ – Delhi) to carry out field studies, training activities and research.

2. What is NCDC Regional Branch?
   NCDC Regional Branch is also an organizational limb of NCDC (HQ – Delhi) to carry out field studies, training activities and research.

3. I am Officer-in-charge of NCDC Branch. Who is my reporting officer?
   Director, NCDC is the Reporting Officer for the Officer-in-Charges for all NCDC Branches.

4. I am Officer-in-charge of NCDC Branch. What staff is available for my branch?
   The details of approved staff maybe seen at Page No. 10 of this SOP.

5. I have a specific technical issue at HQ Level. Whom should I contact?
   You should contact the Head of Department of the specific department at NCDC-HQ. The contact details for the same can be found at https://ncdc.mohfw.gov.in/.

6. I have an administrative issue at HQ Level. Whom should I contact?
   You should contact the Assistant Director (Administration) / Administrative Officer at NCDC-HQ. The contact details for the same can be found at https://ncdc.mohfw.gov.in/.

7. I have a Salary/Pay issue at HQ Level. Whom should I contact?
   You should contact the DDO / Budget Section/ Accounts Section at NCDC-HQ. The contact details for the same can be found at https://ncdc.mohfw.gov.in/.

8. I have a Budget related issue at HQ Level. Whom should I contact?
   You should contact the DDO / Budget Section/ Reconciliation Cell at NCDC-HQ. The contact details for the same can be found at https://ncdc.mohfw.gov.in/.

9. Where can I find the draft Memorandum of Understanding to be signed for NCDC Branches?
   The draft Memorandum of Understanding (MOU) maybe seen at Page annexures of this SOP.

10. Where can I find the draft Lease Deed to be signed for NCDC Branches?
    The draft Lease Deed maybe seen at annexure of this SOP.

11. Where can I find the draft List of Equipment for NCDC Branches?
    The draft List of Equipment maybe seen at annexure of this SOP.

12. Where can I find the approved Draft Layout Plans for NCDC Branches?
    The approved Draft Layout Plans for NCDC Branches maybe seen at (annexure) category I, II, III of this SOP.

13. Where can I find the List of Nodal Officers for NCDC Branches?
    The List of Nodal Officers for NCDC Branches maybe seen at Page XXXX of this SOP (to be attached in annexures).

14. Where can I find the List of NCDC State Branches?
    The List of NCDC State Branches maybe seen at annexure of this SOP (to be attached in annexures).

15. Where can I find the List of NCDC Regional Branches?
    The List of NCDC Regional Branches maybe seen at annexure of this SOP (to be attached in annexure.