BUNDELKHAND SAHAKARI DUGDH SANGH MARYADIT
SIRONJA, SAGAR (M.P.) 470004
AN ISO 9001 : 2015 Certified Organization
E-mail: sanchimccsagar@gmail.com
Phone 07582-281345

Ref No: 637/BKDS/IM/2021 **Dated: 25/05/2021**

NOTICE INVITING E-TENDER

Online Tenders are invited for supply of **Laboratory Equipments** at Bundelkhand Sahakari Dugdh Sangh from reputed manufacturer/distributor/dealer/suppliers. The tender documents containing the terms and conditions can be purchased online & downloaded through following website http://www.mptenders.gov.in from 26.05.2021 onwards. The tender will be opened in the office of the undersigned as mentioned in tender time schedule(key date). The detailed Tender Form can be seen (only for reference) at our H.O website: **www.sanchidairy.com**

Name of item	EMD (Rs)	Tender Fee (Rs)	Bid submission due date & time	Technical Bid opening Date & time	Financial Bid Opening Date & Time
Laboratory Equipments	**As per Schedule II**	500/-	15.06.2021 4.00 pm	16.06.2021 4.00 pm	17.06.2021 4.00 pm

CHIEF EXECUTIVE OFFICER

BUNDELKHAND SAHAKARI DUGDH SANGH MARYADIT
SIRONJA, SAGAR 470004

E-mail: sanchimccsagar@gmail.com
Phone 07582-281345

DOCUMENT COST Rs. 500/-

TENDER FOR PURCHASE OF Laboratory Equipment's

TENDER DOCUMENT

Schedule I	:	General Terms &Conditions.
Schedule II	:	Specification & Quantity& EMD
Schedule III	:	Form A & B

(To be downloaded filled manually &scanned copy uploaded online.)

Schedule IV	:	Price Schedule
Tender Cost	:	Rs.500/- (Rupees Five hundred only)
Place of opening of Tender	:	Meeting Hall of The Bundelkhand SahakariDugdha Sangh Maryadit, Sagar.
Address for Communication	:	The CEO, Bundelkhand Sahakari Dugdha Sangh Maryadit, Sagar 470004

CHIEF EXECUTIVE OFFICER

Tender Details Annexure-I

Tender level Details			
Tender No: *		Tender Creation Date and Time:	
NIT No: *		Title: *	
Notice Invited for:	Tender	Stage:	**II**
Tender Call: *	**Ist**	Currency:	Indian Rupee
Email: *		Division/Basin: *	
District:	**SAGAR**	Vendor Class: *	
Tender Category: *	**Procurement**	Tender Sub category: *	**Stores and Purchase**
Period of Completion (In months): *	**12 months**	Tender Type:	
Form Of Contract:		SOR:	
Name of Work: *	**Laboratory Equipment's Purchase**	Work No: *	
Tender Fee details			
Probable Amount of Contract(PAC) in: *		EMD in :*	**As per schedule II**
Cost of Document in: *	**500/-**	Processing Fee in :	
Important Dates			
Purchase of Tender Start Date : *	**26.05.2021 12.00 pm**	Pre bid meeting Date and Time:	
Purchase of Tender End Date: *	**15.06.2021 3.00 pm**	Bid Submission End Date: *	**15.06.2021 4.00 pm**
Mandatory Submissions (Envelope A) Open Date: *	**16.06.2021 4.00 PM**	Technical Proposal (Envelope B) Open Date: *	**16.06.2021 5.00 pm**
Financial Bid (Envelope C) Open Date: *	**17.06.2021 4.00 pm**		

* Mandatory field

SCHEDULE - I
General Terms & Conditions for tender submission & supply

Bundelkhand SahakariDugdha Sangh Mydt Sagar (BKDSM), cooperative organization, invites sealed tenders from bonafide manufacturers and/ or their authorized dealers or other suppliers for supply of Microbiology**Laboratory Equipment's, General laboratory equipment's &**Analytical equipment's strictly in adherence to the detailed specifications given in the schedule II of the tender documents.

Bundelkhand SahakariDugdha Sangh Mydt., Sagar reserves the right to accept or reject any or all tenders, which in their opinion justify such actions, without further explanation to the tenderers.

1.0 DECLARATION:

The submission of a tender by a tenderer implies that he/she has read the notice and conditions of the tender and the terms and conditions of contract and has made himself/herself aware of scope and specifications of the supplies to be made and the destination where the supplies have to be made and satisfied himself/herself regarding the quality and specifications of the articles.

2.0 TENDER SUBMISSION:

2.1 Tenders received by e-mail will not be considered. However, amendments by e-mail to a tender sent will be considered, provided the same are received before the opening of the tender and confirmed by post.

2.2 Individuals signing on the tender and other related documents must specify in which capacity of the firm he/ she has signed the document. (copy to be uploaded-mandatory)

2.3 The tenderer(s) should clearly state in their offer the address, telephone e-mail, PAN and GSTIN Numbers. Any change in the address should immediately be communicated to the Chief Executive Officer, Bundelkhand SahakariDugdh Sangh Mydt, Sagar and correspondence thereafter will be made at the changed address.

2.4 Negligence on the part of tenderer in filling the tender form offers him/her no right to withdraw the tender after it has been opened.

2.5 The acceptance of the tender and award of the purchase order will be the sole right of the Chief Executive Officer, Bundelkhand Sah. Dugdha Sangh Mydt. who does not bind himself to accept a tender in whole or in part or reject any or all the tenders received without assigning any reasons and no explanation can be demanded of the cause of rejection of the tender by any tenderer.

2.6 The Chief Executive Officer, BKDSM reserves the right to place order for whole requirement with any tenderer or split the orders among one or more tenderers or not to purchase at all any item even after rate approval.

2.7 Each tender should be accompanied with copy of PAN, GST, sales tax number and sales tax clearance certificate; without which the tender may not be entertained.

2.8 The tenderers should submit the rates (ONLINE) in the schedule-IV only. The conditional tenders are liable to be rejected.

2.9 No person or firm is permitted to submit more than one tender under different names.

2.10 The tenderer shall not sublet the contract or assign to any other party or parties, the whole or any portion of the contract without prior written permission of Chief Executive Officer, BKDSM.

2.11 Manufacturers will be given preference. Copy of license is to be attached with tender for each item filled in, wholesalers dealing with the item will have to attach copy of authorization certificate of the manufacturer. (copy to be uploaded-mandatory)

2.17 Tenderer shall fill all the details of the unit in the enclosed form- A in schedule-III. (copy to be uploaded-

mandatory)

Bid Validity
Bid shall be valid for a period of 90 days from the date of opening.

Documents composing the Bid
Technical bid:

1. Technical bid form filled (to be uploaded)
2. Bid Security (EMD) – Scan copy to be uploaded
3. Tender document each page sealed and signed as token of acceptance to each and every terms and conditions

Commercial Bid

- Commercial Bid form filled

Bid price
Price indicated on the price schedule shall be inclusive of all taxes & duties and other expenses like

- GST (Percentage of GST to be mentioned)
- Freight
- Insurance

3.0 Earnest Money Deposit (as detailed in Price bid)

Note:-When submitting EMD online please note that you pay only the EMD of particular item you would like to offer the rate. By choosing "Yes" option so as to enable you for EMD exemption.

All the tenderers are required to deposit fresh Earnest Money as specified in tender document, for each item separately through online mode in favorof" BundelkhandSahakariDugdha Sangh Mydt, Sagar". EMD should reach online mode before the tender opening time & schedule. Submissions of earnest money by any other mode than specified above shall not be acceptable and the related tender shall not be eligible for consideration.

3.2 Any tender which is not accompanied by Earnest Money deposit are liable to be rejected. Earnest money deposit of unsuccessful tenderers will be returned within 60 days from the date of opening of the tender. The earnest money deposit of the successful tenderers will be released on completion of supply/work as the case may be within the stipulated period.

3.3 No interest will be paid on the earnest money for the period during which (the EMD) lies in deposit with Bundelkhand SahakariDugdhaSangh.Maryadit.

- EMD may be forfeited:
  - If Successful Bidder/supplier fails/denies to perform work
  - If any bidder/supplier withdraw its bid during the bid validity period

4.0 <u>PRICES:</u>

4.1 Prices offered by the tenderers should be firm and free from all escalations and shall be valid at least for a period of 12 months from the date of approval of rates. BKDS will have the right to extend the validity of the tender approval by 3 months. We would communicate our rate approval within 60 days of opening of tender

4.2 The tenderer should quote rate on FOR dairy plant Sagar basis. (GST Extra)

4.3 If need be, negotiations will be done for prices and as well as terms& conditions of material supply only with the party which offers thelowest rate.

4.4 The prices charged for the material supplies under the contract by the supplier firm in no event shall exceed the lowest price at which the supplier firm sells the material of identical tender description to any other persons/ firms during the period and until the execution of all supply orders placed during contract period.

4.5 The lowest rate shall not be the only criteria for approving the tender.

5.0 MODE OF DESPATCH

5.1 The material to be supplied by successful firm shall be dispatched to the dairy under prior intimation. Depending upon the type of material, the supplier shall have to carry out proper packing/crating to avoid damage during transit.

5.2 FOOD GRADE CERTIFICATE: Certificate(s) of use of food grade quality of raw material are to be sent along with consignments where ever required.

5.3 Wharfage /Demurrage etc. on account of incorrect or delayed dispatch of material/documents shall be the responsibility of supplier and shall be recovered from the bills.

6.0LIQUIDATED DAMAGES;

6.1 Delivery date are fixed for supply of material they shall be strictly adhered too. In case they are not followed, or in case of delay in execution or non-execution of the order, the Dugdha Sangh reserves the right either to cancel the order and make alternative purchases from other sources, at the risk and cost & expenses of the defaulting supplier. In case the supplies are not affected as per the schedules, the liquidated damages may be charged on the goods not so delivered as under: -

S. No.	Duration of delay	Liquidated Damages
1.	Upto 15 days	1% cost of the unit.
2.	Between 16 to 30 days	2% cost of the unit
3.	Beyond 30 days	Upto 5% cost of the unit.

- If the tenderer fails to make supply as per purchase order without any valid reason, the order would be treated as cancelled and the firm may be blacklisted for future dealings and EMD also would be forfeited by the management.

7.0 INSURANCE:

Insurance is to be arranged by the tenderer.

8.0 INSPECTION:

8.1 All the supplies are subject to inspection at our plant before acceptance. If goods are rejected due to defective or wrong supply, the report of our authorized official in this respect shall be FINAL and no correspondence on the subject would be entertained. The rejected goods should be removed from our premises by the tenderer within 15 days after receipt of our inspection report failing which the same shall be returned to the supplier at his risk and expenses or disposed of in Auction and the proceeds, if any, less expenses would be credited to tenderer's account.

8.2 Sample of the articles should be sent/produced before the competent authority if asked for within 7 days or as mutually agreed.

9.0 PAYMENT

9.1 Our normal terms of payment is full payment after receipt, inspection and acceptance of materials in our stores within a period of about 30 days after receipt. Such payments shall be made through RTGS. Tenderer agreeing to these terms would be given preference over those specifying other terms.

10. TERMINATION OF CONTRACT:

If any act of commission or omission of a unit under contract brings Bundelkhand Sah. Dugdha Sangh Mydt. to

dispute, then Bundelkhand SahakariDugdha Sangh Mydt. shall be competent to debar/blacklist the unit from further business.

11.0 CONSEQUENCES OF BREACH OF AGREEMENT:

If any firm under the contract commits breach of any of the conditions, it shall be lawful for the Chief Executive Officer, Bundelkhand Sah. Dugdha Sangh Mydt. to cancel the contract and to purchase material from any other alternate sources on the risk and cost of the defaulting unit.

12. DISPUTE ARBITRATION & FINAL AUTHORITY:

12.1 It should be clearly understood that in the event of a successful tenderer failing to accept and execute the supply order, then decision of the Chief Executive Officer, Bundelkhand Sah. Dugdha Sangh Mydt. in this respect will be final and binding on the successful tenderer.

12.2 For all matters of dispute, the decision of the HonorableManaging Director, MPCDF Under Arbitration and Conciliation Act. 1996 shall be final and binding on all the concerned.

12.3 For all disputes, the venue for legal course shall be at Sager.

Chief Executive Officer

Bundelkhand SahakariDugdha Sangh Mydt. Sagar

BUNDELKHAND SAHKARI DUGDHA SANGH MARYADIT
SAGAR DAIRY PLANT;SIRONJA, SAGAR

SCHEDULE - II

S.No	Instrument	Quantity	EMD
Microbiology Laboratory Equipment's			
1	LaminarAirFlow	1	Rs. 20000
2	AutoclaveVertical	1	
3	Incubators:Ambient to 70°C	1	
4	DigitalColonyCounter	1	
5	Binocular Microscope	1	
6	BOD Incubator	1	
7	Fumigator	1	
8	Micropipette (6 Nos.)	1	
General Laboratory Equipment's			
1	Digital Water Bath for TS-12 holes	1	Rs.10000
2	Hot Plate Larger (Vertical)	1	
3	Hot Plate Small (Round)	2	
4	Electrical Hot Plate with Magnetic stirrer	1	
5	Hot Air Oven	1	
6	Muffle Furnace	1	
Packaging material Testing Equipment's			
1	Puncture resistance tester machine for corrugated box duplex	1	Rs.10000
2	Bursting Strength tester machine for corrugated box duplex	1	

S. No.	Instruments	Make	Application	Quantity	EMD
Analytical laboratory instruments					
1	Electronic Weighing Scale	Mettler Toledo,Minebaintec(formally known as Sartorious), A & D Techno.,	Least Count 0.1 mg and capacity upto 220gm	1	5000
2	Electronic Weighing Scale	Citizen, Acezet, Mettler Toledo,Minebaintec(formally known as Sartorious), A & D Techno.	Least Count 0.1 mg and capacity upto 300gm	1	5000
3	Digital Moisture Analyzer	Mettler Toledo,Minebaintec(formally known as Sartorious), A & D Techno.	For butter moisture analysis	1	10000
4	Digital pH meter	Mettler Toledo, Merck, Thermo Fisher,SIAnalytics,Hash, Hanna Instruments	For research with a comprehensive range of features and functions, making it suitable for general laboratory, QC and GLP based applications.	1	3000
5	Digital TDS Meter	ATAGO, Hatch, Hanna Instruments, Eutech	For water quality analysis	1	2000
6	Digital BR apparatus	ATAGO, Rudolph, Hanna Instruments	For Checking purity/Adulteration of Butter& Ghee	1	3000

The detail specifications of all the above Laboratory equipment's as given below:

LaminarAirFlow

S.No.	Specifications	Requirement	Yes/No
1.	**Workingprinciple**	• TheLAMINARAIRFLOWUVChamberwhenswitched on, the blower unit should create a suctionpressurethroughtheprimaryfilter(orPre-filter),whichremoves dust particles of above 10-micron size in thefirst stage. Subsequently, the filtered air passed to theHEPA filters, where the particles or substances of 0.3-micron size and above are removed. Finally the ultra-clean filtered air supplied to the working chamber as auniformairflowtoperformprecisionanalysisactivities	
2.	**Cabinet (Material ofconstruction)**	Thesystemshouldhave • LaminarAirFlowCabinetshouldhavefullyenclosedbenchdesigned. • TheLaminarflowbenchshouldhaveStainlessSteelSS304tablewithMScoatedtabularframeandbody. • LaminatedUnitshouldalsohavestandbycontrolsystemwithlockandkey.	
3.	**Unit**	Theunitshouldhave • ShouldhaveLCDdisplaytoshowmeasuredparameters like stage velocity, total using time, UV/FLlampon/offetc. • UnitshouldhaveDifferentialpressureindicator.	
	Cleanlinesslevel	Thesystemshouldhave • CLASS100(ISO5forparticlesizes0.5µ<3530particles/ M³ of air at both at Rest & OperationConditionasperISO14644–1	
4.	**Workingarea**	Minimum 4ft.(w)x2ft.(h)x 2ft (l)	
5.	**Worktable**	• It should have IS 304 Grade Stainless Steel with finish4polishsurfaceFrontdoor • 5mmthickclearAcrylicSheet-Verticalsliding	
6.	**FloorstandingBasestandforcabinet**	• Havelevelingfeetorlockingcastersormotorizedheightadjustment.	
7.	**Directionofflow**	• Verticalairflow	
8.	**AirflowSpeed**	• FilterfaceVelocityshouldhave90Feet/Minute±20(0.45m/s)	

9.	**BlowerAssembly**	• Itshouldhaveonesetblowersystem,whichconsistsofdynamically&staticallybalancedaluminumcentrifugalimpellerdrivenby 1/4HP,singlephase,1200-1400RPMmotor,enclosedinanPU coatedGIcasingsuitablysuspendedinapairsprings&connectedt othe filter chamberthroughflexible canvas duct	
10.	**HEPAFilters**	Thefiltersshouldhave • Size:30"x 18"x3" • Type:Separatorlesstype,Mini-PleatsHEPAMedia • Media:Ultracleanglassfiberpaper • Retention:0.3Micron • Efficiency:99.997%orbetter • Initial Pressure:16mmWG • Grade :H13rating	
11.	**PreFilters**	• Size: 600x300x65mm • Media: Synthetic,non-wovenpolyester • Casing: EpoxypaintedGIframe • Retention: 10Micron&above • Efficiency: 90% • Initial Pressure:6mmWG • Grade :F7rating	
12.	**ParticleRetention**	• 0.3Micron	
13.	**Noiselevel**	<60dBA±5	
14.	**PowerSupply**	• Powersupplyshouldhave220-230V,50Hz.AndallcomponentsULlisted and CE marked	
15.	**Illumination**	• Externallymountedilluminatinglampwithseparateswitchto illuminate the work area.	
16.	**Light**	• Highintensity,lowwattage>800lux • Itshouldbe15Watts,,1½Feetlength,–1No.each	
17.	**UVlamp**	• Pre-mountedUVlamp(30W)withseparateswitchwithUVlight hours run indicator.	
18.	**Otheraccessories**	• Twogas outlet in theworkingarea, oneon each sidewall • LevelingScrews&CastorWheels • DOPtestport • Easilychangeablepre-filters • FittedwithUVGermicidallampforsterilization. • Pre-installedpressuregaugeforMeasurementofHEPAFiltersChokingsystem. • Ensurenoiselessoperationandanti-vibrationconstructionprovidesefficientworkingenvironment.	

		• Audibleorhighlyvisualalarmforfilterreplacementwarning	
19.	**Electrical sockets or Pass Through Ports**	• Sidemountedswitchesforminimumthree(15/5amp)electricalsockets for ancillaryequipmentoperationor • Convenientrear-wallpassthroughportsforsaferouting ofinstrumentcords,cablesandleadsfor15/5ampsmultiplesocket with switches on thewall,	

20.	StandardsCompliance	• Performance specificationsandconstructionmustmeetorexceedOSHA,ANSIandrelevantinternationalstandards to assureoperator safety	
21.	**Certificationrequiredforsignoff**	• TestCertificateforMini-PleatHEPAFilters • CalibrationCertificateforPressureGauge • CalibrationCertificateforAirVelocityAnemometer, • WarrantyCertificatefor24monthsaftersatisfactoryinstallationand working	
22.	**Spares**	• SparecompatibleUVlamp–2 Nos • AspareHEPA filterfor chamber– 1No • Gasburner(Bunsenburner)–2Nos	
23.	**Operation andmaintenancetrainingcomponent**	The supplier will have to carry out successful installationatour laboratory premises(where ever the systemhas tobe installed) and provide on – site comprehensive trainingfor scientific personnel operating the system and supportservicestillcustomersatisfactionwiththesystem.	
24.	**Warranty**	Warrantedfor2yearsaftersatisfactoryinstallationandworkingexcludingconsumableparts andaccessories.	
25.	**Comprehensive Maintenance**	Comprehensive Maintenance of the equipment supplied,installed,commissionedfor60monthsafter2-yearWarranty/DefectsLiabilityPeriod.Thiswillincludeyearlycalibrationstart-up/commissioningroutineservicing, regular maintenance, preventive maintenance ofequipment and components and break down repairs as andwhen occurring, ensuring that system does not remain outof service for a period more than 24 hours in case of majorbreakdowns and 6-8 hour in the case of minor breakdownsdue to any unforeseen break down. The Organization willprovide Water / Electricity power, etc. for maintenancework.Thesuccessfultenderershallkeeptheessentialsparesatsiteduringthe ContractPeriodtoavoidthedelay inattendingfaults/maintenance	

26.	Service contractclauses, includingprices	List of all spares and accessories (including minor) withpartnumbersandprice,requiredformaintenanceandrepairs in future after guarantee/warranty period should beattached;	
27.	Operating manuals,service manuals,othermanuals	Should provide2 sets (hardcopyandsoft-copy) of: - • User,technicalandmaintenancemanualstobesuppliedinEnglishlanguagealongwith machine diagrams; • Listofequipmentandproceduresrequiredforlocalcalibration and routinemaintenance; • Serviceandoperationmanuals(originalandcopy)tobeprovided; • Advancedmaintenancetasksdocumentation; • Certificateofcalibration andinspection	

28.	CertificatesPerformance andsafety standards(specific to thedevice type);Localand/orinternational	• ShouldbeFDA/CE/BIS approvedproduct. • Manufacturer and Supplier should have ISO 13485certificationunder ISO 9001forqualitystandards. • Electrical safety conforms to the standards forelectrical safety IEC 60601- General requirements (orequivalentBIS Standard) • Certified to be compliant with IEC 61010-1, IEC61010-2-40 for safety	
29.	Supplier/Manufacturer	• Mustbe ISO certified forquality	
30.	Service SupportContact details(HierarchyWise;including a tollfree/landline number)	• Contact details of manufacturer, supplier and localservice agent to be provided; Any Contract(AMC/CMC/adhoc) to be declared by themanufacturer;	
31.	Recommendations orwarnings	• Anywarningsigns wouldbe adequatelydisplayed	
32.	**Payment**	• Payment only after installation, validation andperformancedemonstration	

VerticalAutoclave

S.No.	Specifications	Requirement	Yes/No
1	**Application**	**A** vertical steam sterilizer to provide safe,economical and effective sterilization forlaboratories that do not want to compromiseon quality, safety and reliability and need tosterilize Liquids such as nutrient media andbuffersolutions,Soliditemssuchaspipettes,tubes and filters and Glassware and plasticarticles	
2.	**Chamber**	Verticalloadingtypechamberwithservicebasketand **complying to the strictestinternational directives and standards**equippedwith • Steamcollectionbottlestoremovesmostofthesteamduring operation • Wareinlet and outlet valve • Drain valve for cleaning or changingwithfresh water • Constructedwithappropriatestainlesssteel with superior corrosionresistanceto water andsteam • Hightemperatureandpressureresistantsilicon gasket • Built-inanalogpressuregauge • Manualpressurereleasevalve • Wheels/castersfor easytransport.	
3	**Chambersize/Capacity**	Approx.80-120lit	
4	**Gauges**	• Shouldhaveawaterlevelgauge • Analoggaugesformeasuringinnerandoutersteampressure. • Shouldhaveaninnertemperatureindicator.	
5	**Chambersize/Capacity**	Approx.80-120L	
6	**Display**	• FullyAutomaticPIDControl ± 0.1 °C • LEDdisplayfortemperatureandremainingtime	

7	**OperatingTemperaturean daccuracy**	• Maximum123°C • Temperature Accuracy: ± 0.5 °C at121 ° C • MusthaveTemperaturecalibrationfunction	

8	**Operatingpressureandgauge**	• 15-20psi • ANALOG PRESSURE GAUGE (0 - 400 psi pressure gauge) indicatingactualpressure	
9	**Timer**	AutomaticSTART/STOP timer	
10	**Safetywarnings andalarms**	• Acyclecannotstartifthedoorisopenornot properlylocked • The door cannot unlock until chamberpressurereaches roompressure • Over-TemperatureCut-Offwithaudiovisualalarm • LowTemperatureWarning:Ifthetemp.stays below 121°C for more than 5seconds • Low Heat Warning: If the temp. does notreach the sterilization temperature duringtheset periods • Over-Pressure Cut-Off with audio visualalarm • Over Current Cut-off with audio visualalarm. • LowWaterLevelheatercut-offandALARMS	

11	**Accessories**	• Perforated corrosion freebasketsmadeupofSS304(3-4Nos.) that are stackable twohighor even morelevels, • Siliconegasket	
12	**Calibrationcertificates**	Certificate from ISO17025 accreditedlabfortemperature,pressuregauges&timer.	
13	**Operation andmaintenancetraining component**	• The supplier will have to carry outsuccessfulInstallationatthelaboratorypremises(whereeverthe system has to be installed) andprovideon–sitecomprehensivetrainingforaminimumoftwoscientificpersonneloperatingthe systemandsupportservicestillcustomersatisfaction	
14	CertificatesPerformanceandsafety	• ShouldbeFDA/CE/BISapproved product.	

	standards (specific tothedevicetype);Localand /orinternational	• Manufacturer and SuppliershouldhaveISO 13485certification under ISO 9001forqualitystandards. • Electrical safety conforms tothe standards for electricalsafety IEC 60601-Generalrequirements (orequivalentBISStandard) • Certified to be compliant withIEC 61010-1, IEC 61010-2-40forsafety	
15	Supplier/Manufacturer	• MustbeISOcertifiedforquality	
16	Service SupportContact details(Hierarchy Wise;including a tollfree/landlinenumber)	• Contact details ofmanufacturer, supplier andlocal service agent to beprovided; Any Contract(AMC/CMC/adhoc) to bedeclaredbythemanufacturer;	
17	Recommendationsorwarn ings	• Any warning signs would beadequatelydisplayed	
18	**Warranty**	• Warrantedfor2yearsaftersatisfactoryinstallat ionandworkingexcludingconsumable partsandaccessories.	
19	**Comprehensivemai ntenance**	Comprehensive Maintenance of theequipment supplied, installed,commissioned for 60 months after 2-yearWarranty/DefectsLiabilityPeriod. This will include start-up/commissioning routine servicing,regular maintenance, preventivemaintenance of equipment andcomponentsandbreakdownrepairsasand when occurring, ensuring thatsystem does not remain out of serviceforaperiodmorethan24hoursincase of major breakdowns and 6-8hour in the case of minor breakdownsdueto anyunforeseen break down. The institution will provide Water /Electricity power, etc. for maintenancework. The successful tenderer shallkeep the essential spares at site duringthe Contract Period to avoid thedelayin attending faults / maintenance	

20	Service contractclauses, includingprices	• List of all spares and accessories(includingminor)withpartnumbers andprice,requiredformaintenance and repairs in futureafterguarantee/warrantyperiodshouldbe attached;	
21	Operating manuals,servicemanuals,oth ermanuals	Shouldprovide2sets (hardcopyandsoft-copy)of: - • User,technicalandmaintenancemanuals to be supplied in Englishlanguagealongwithmachinediagrams; • List of equipment and proceduresrequired for local calibration androutinemaintenance; • Serviceandoperationmanuals(originalandcop y)tobeprovided; • Advancedmaintenancetasksdocumentation; • Certificateofcalibrationandinspection	
22	**Payment**	Paymentonlyafterinstallation,validation and performancedemonstration	

Incubators:Ambientto70°C

	Specifications	Requirement	Yes/No
1	**Application**	For incubation of organisms, such as on agar plates, andalso for conditioning of heat sensitive media and toprovide an optimal, homogeneous, temperatureuniformity and stability to ensure that protocols are fullyreproducible–	
2	**Material ofconstructi on**	• Doublewalledconstructionwithcompleteinnerch amber made of Corrosion resistant stainlesssteel(AISI430) • Outer chamber should be of steel sheet finishedwithpowdercoatedpointInsulationtomai ntaindesiredtemperature • Innerglassdoor • Innerchambershouldbefabricatedwithribsforadju sting shelves to convenient height andshelvesto besupplied • Shelvesshouldbemadeofpolishedstainlessste elsheet as per chamber	
3	**Capacity**	• 150-200liters	
4	**Temperature range**	• Temperature should be thermostaticallycontrolled • Temperature should be thermostatically controlledwith range 1) ±2˚ C Ambientto 70˚ C • Over-TemperatureCut-Offwith audio/visualalarm • LowTemperatureWarningalarm	
5	**Unit**	• Airventilators to beprovided on both side • The equipment should be providing withmicroprocessorcontrolleddigitaldisp lay • Temperature homogeneity between top andbottomshelvesshouldbemaintainedbyforced circulation	
6	**Calibration**	CertificatefromaISO17025accreditedlab	
7	**Operation andtrainingco mponent**	• ThesupplierwillhavetocarryoutsuccessfulInstallation at the laboratory premises (where everthe system has to be installed) and provide on –sitecomprehensivetrainingforaminimumoftwoscienti ficpersonneloperatingthesystemtillcustomersatisfacti on	
8	CertificatesPerfo rmanceand	• ShouldbeFDA/CE/BIS approvedproduct. • ManufacturerandSuppliershouldhaveISO	

	safety standards(specific to thedevice type);Localand/orinternational	13485 certifications under ISO 9001for qualitystandards. • Electricalsafetyconformstothestandardsforelectrical safety IEC 60601-Generalrequirements (orequivalentBISStandard) • Certified to be compliant with IEC 61010-1, IEC61010-2-40 for safety	
9	Supplier/Manufacturer	• Mustbe ISO certified forquality	
10	Service SupportContact details(HierarchyWise;including a tollfree/landline number)	• Contact details of manufacturer, supplier andlocalserviceagenttobeprovided;AnyContract (AMC/CMC/adhoc) to be declared by themanufacturer;	
11	Recommendations orwarnings	• Any warning signs would be adequatelydisplayed	
12	**Warranty**	• Warranted for 2 years after satisfactory installationandworkingexcludingconsumablepartsandaccessories.	
13	Service contractclauses, includingprices	• List of all spares and accessories (including minor)withpartnumbersandprice,requiredformaintenanceandrepairsinfutureafterguarantee/warrantyperiod should beattached;	
14	Operatingmanuals,servicemanuals, othermanuals	Should provide2 sets (hardcopyandsoft-copy) of: - • User,technicalandmaintenancemanualstobesuppliedinEnglishlanguagealongwithmachinediagrams; • List of equipment and procedures required for localcalibrationand routinemaintenance; • Serviceandoperationmanuals(originalandcopy)tobe provided; • Advancedmaintenancetasksdocumentation; • Certificateofcalibration andinspection	
15	**Payment**	Paymentonlyafterinstallation,validationandperformancedemonstration	

Digitalcolonycounter

S.No.	Specifications	Requirement	Yes/No
1.	Application	For fast and accurate bacterial or moldcolony counting and to aid indetermining counts of colony clustersandexceedinglylargeorsmallcolonies,and can accommodate multiple dishsizesor formats.	
2.	Material of construction	Full Stainless steel fabricated bodywithdulyheat curedepoxycoating.	
3.	Display andcounting	Itshouldconsistof • Digital display up to 4 digitswith confirmation by audibletone. • It should consist ofMagnifyinglens (greater than 2Xmagnification with digitalmarkingpen) • Accepts petri dish upto size 120mm diameter with a centeringadaptorforstandard90 mmpetridish • Glare free viewing low energybrightLED's • A switchable black backgroundviewingtranslucentanddifficulttoseecolonies. • Zeroresetbutton	
4.	Operation andtrainingcomponent	• The supplier will have to carry outsuccessful Installation at thelaboratorypremises(whereeverthesystem has to be installed) andprovide on – site comprehensivetraining for a minimum of twoscientificpersonneloperatingthesystemtillcustomersatisfaction	

5.	CertificatesPerformance andsafety standards(specifictothedevicetype);Local and/orinternational	• ShouldbeFDA/CE/BISapprovedproduct. • Manufacturer and SuppliershouldhaveISO 13485certification under ISO 9001forqualitystandards. • Electrical safety conforms to thestandardsfor electricalsafety	

		IEC60601-Generalrequirements (orequivalentBISStandard) • Certified to be compliant withIEC 61010-1, IEC 61010-2-40forsafety	
6.	Supplier/Manufacturer	• Mustbe ISO certified forquality	
7.	Service SupportContact details(Hierarchy Wise;includingatoll free/landlinenumber)	• Contactdetailsofmanufacturer,supplier and local service agentto be provided; Any Contract(AMC/CMC/adhoc)to be declaredbythe manufacturer;	
8.	Recommendationsor warnings	• Any warning signs would beadequatelydisplayed	
9.	**Warranty**	• Warranted for 2 years aftersatisfactory installation andworking excluding consumablepartsand accessories.	
10.	Service contractclauses, includingprices	• Listofallsparesandaccessories(including minor) with part numbersand price, required for maintenanceandrepairsinfutureafterguarantee/warrantyperiodshouldbe attached;	
11.	Operating manuals,service manuals,othermanuals	Shouldprovide2sets (hardcopyandsoft-copy)of: - • User,technicalandmaintenancemanualstobesuppliedinEnglishlanguagealongwithmachinediagrams; • Listofequipmentandproceduresrequiredforlocalcalibrationandroutinemaintenance; • Serviceandoperationmanuals(originalandcopy)tobe provided; • Advancedmaintenancetasksdocumentation; • Certificateofcalibrationandinspection	
12.	**Payment**	Payment only after installation,validation and performancedemonstration	

BinocularMicroscope

Sno.	Specifications	Requirement	Yes/No
1	**Application**	A System complete with illumination systemisrequired.Forviewofindividualcells,evenliving ones with high magnificationmicroscope using 2 eye lenses to reduce theeyestrain	
2	**Body**	• Body-Single mold sturdy stable basestand,inclinedBinocularbody30°,360 °rotatable head with focus adjustmentcontrols. • Adurabletexturedacidresistantfinish • Allopticalpartsincludingobjectives,eyepieces and prisms should have anti-reflective coating which also gives anti-fungalproperty. • Allmetallicpartsshouldbecorrosion-proof,acid proofand stain-proof.	
3.	**Eyepiece**	• -Highest quality 10 X/20mm wide angleanti fungus field eyepiece. One withpointer. Diopter adjustment must bepresent on both eye pieces. (the image ofthe object as seen through the binoculareyepiece should be well defined centrallyinat least 2/3 field of view) • Achromatic, wide field, 10 x with inbuiltpointer. • The eyepiece should be aplanatic andhave a minimum field number of 18Diopteradjustmentmustbe presenton one/botheyepiecesorontheeyepiecetube.	
4.	**Opticalsystem**	• Optical system should be infinitycorrected. • Built-in LED light source with whitelight with intensity control and LEDlifeof morethan 10, 000 Hrs.	
5.	**Objective**	• -Parfocal, antifungal coated 4×, 10×,40×and 100× (oil immersion) withsemiplannerachromaticcorrection. • Objectiveshouldbewellcenteredeven if their position on turret ischanged.	

		• 10× and 40× objectives should havenumerical apertures of 0.25 and 0.65respectively. • 100×shouldhavenumericalaperture of 1.25 and should be of oilimmersion. • Unbreakable containers to beprovidedforstoringtheobjectives. • Allobjectivesshouldbewidefield,achromatic and par focal.	
6.	**Nosepiece**	• Backwardtiltedrevolvingnosepiecesuitableto accommodatefourobjectiveswith click stop • . It should be provided with rubberribbed grip for easy rotation mountedonaprecisionballbearingmechanismfor smooth and accurate alignment.Extraportsifanyshouldbefittedwith dust& fungal proofmetallic/ebonitecaps.	
7	Focusing:	• . Coaxial coarse and fine focusingknob, capable of smooth, finefocusing movement sensitivity;minimum:300microns;focusingstopforslidesafety...	
8	**Stage**	• Stage uniformly horizontal,mechanicalstagehavingdimensionsof length 140 mm (+/-20mm) withfine Vernier graduations (minimumreadingaccuracyof 0.1mm). • Itshouldbedesignedwithconvenientsub-stage vertical coaxial adjustmentforslidemanipulation. • The stage should have ball-bearingarrangementtoallowsmoothtravelintransverse directions i.e. 80 mm (+/-5mm)andfront toback direction, 50mm(+/-5mm).	

9.	**Sub-stagecondenser**	• Abbe-typecondenserwithnumericalaperture (N.A.) 1.25 focusable withrack and pinion arrangementincorporating a spherical lens and aniris-diaphragm	

10.	**Sub-stageillumi nator**	• The system should have a build-invariablelightsource(Illuminator) . • Thislightsourceshouldhavea20W,6V Halogen lamps. • Thesystemshouldbeprovidedwithaste pdowntransformerandanon-offswitch and intensitycontrol. • The lamp should be provided with alampsocketwhichhasthefacilityforea syreplacement of the bulb	
11.	**Power supply &protection**	• Voltage220VAC,50Hz.shouldha veoneon-offpower switch • A Plano-concave mirror in forkmounting should be supplied whichwould be attachable to the base forfieldusewhenpowerisnotavailable. • Shouldhaveover-chargingcut-offwithvisual symbol	
12	Batterybackup	• Minimum 1 Hour	
13	Operating andstorageco nditions	• Capable of operating continuously inambient temperature of 10 to 50 ° Cand relative humidity of 15 to 90% inidealcircumstances. • Storage condition: Capable of beingstored continuouslyin ambient temperatureof0to50°Candrelativehu midityof 15to 90%	
14	**ManualAc cessories**	• Workingmanualshouldbeprovidedwi theach microscope. • Immersionoil25ml×2 • lenstissue paper2 rollsor boxes) • Lenscleaningsolution(100ml) • Oneanti-static cleaningbrush. • Theunitshallbecapableofbeingstor ed continuously in ambienttemperatureof 0 -50 degC and relative humidityof15-90%.	

15	CertificatesPerformance andsafety standards(specific to thedevice type);Localand/orinternational	• ShouldbeFDA/CE/BISapprovedproduct. • Manufacturer and Supplier shouldhaveISO13485certificationunderISO9001for qualitystandards. • TVUCert • Electrical safety conforms to thestandardsforelectricalsafetyIEC60601- General requirements (orequivalentBIS Standard) • Certified to be compliant with IEC61010-1,IEC61010-2-40forsafety	
16	Supplier/Manufacturer	• Mustbe ISO certified forquality	
17	Service contractclauses, includingprices	• Listofallsparesandaccessories(including minor) with part numbers andprice,requiredformaintenanceand repairs in future after guarantee/warrantyperiodshould be attached;	
18	Operatingmanuals,servicemanuals, othermanuals	Shouldprovide2sets (hardcopyandsoft-copy) of: - • User, technical and maintenance manualsto be supplied in English language alongwithmachine diagrams; • Listofequipmentandproceduresrequired for local calibration and routinemaintenance; • Service and operation manuals (originalandcopy) to beprovided; • Advanced maintenance tasksdocumentation; • Certificateofcalibration andinspection	
19	**Warranty**	• Warranted for 3 years after satisfactoryinstallation and working excludingconsumablepartsandaccessories.	
20	**Comprehensive Maintenance**	ComprehensiveMaintenanceoftheequipment supplied, installed,commissioned for 60 months after 3yearWarranty/DefectsLiabilityPeriod.Thiswill include yearly calibration start-up /commissioning routine servicing, regularmaintenance,preventivemaintenanceof	

		equipmentandcomponentsandbreakdownrepairsasandwhenoccurring,ensuring that system does not remain outof service for a period more than 24 hoursin case of major breakdowns and 6-8 hourin the case of minor breakdowns due toanyunforeseenbreakdown.Theinstitution will provide Water / Electricitypower,etc.formaintenancework. Thesuccessfultenderershallkeeptheessential spares at site during the ContractPeriodtoavoidthedelayinattending faults/maintenance	
21	**Operation andmaintenancetraining**	Thesupplierwillhavetocarryoutsuccessfulinstallationatourlaboratorypremises (wherever the system has to beinstalled)andprovideon–sitecomprehensivetrainingforscientificpersonneloperatingthesystemandsupport services till customer satisfactionwiththesystem.	
22	**Payment**	Paymentonlyafterinstallation,validationanddperformancedemonstration	

BOD Incubator

S.No.	Specifications	Requirement	Yes/No
1.	Application	For use in microbiological laboratories tomeasurebiochemicaloxygendemand(BOD) . The incubators are used to sustain andcontrol the humidity and temperatureessential to perform many types ofexperiments in, microbiology and biologycells.	
2.	Double walledmodular structurewith 3" thick PUFinsulation	i) Outerwall:Powdercoatedsteelsheetwit h resinbakedfinish ii) Innerwall:Stainlesssteel*withribsforadj ustingremovableperforatedshelvesattheheig htof45mm. Thenuts,screwsandhingesoftheinnerchamb ershallbeofStainlessSteel*.(*SSGradeX07 Cr18Ni9ofIS6911:1992orequivalent) iii) PerforatedStainlessSteel*Partitiontray(6 nos.)	
3.	Doors	Doubledoortype • InnerDoor:Fullviewinneracrylicdoorwith aluminumchannelboundary,closesonaresi lientgasketandpermitsviewofthespecimen s(inside theIncubator),withoutdisturbingthetherm alconditionsinsidethechamber. • Interiorillumination • OuterDoor:Powdercoatedsteelsheetwit h resinbakedfinish	
4.	Capacity	• 340Liters	
5.	TemperatureRange	• 5°Cto60°Cwithdigitalcontroller, • Temperatureincrements0.1°C	
6.	ControlAccuracy	• ±0.1°C orbetter (at60°C).	
7.	DistributionAccuracy/unifo rmty	• ±1°Cor better(at 37°C).	
8.	Temperaturedisplay	• Microprocessor based Digital displayoftemperaturealongwithcalibr ationcertificate by 17025 accreditedagencies. • Temperature recorder for innerchamberwithmaintenance free	

		batterybackupandautochargingofbattery	
9.	Aircirculation	• With two completely in built motorsalong with fan to keep thetemperature uniform throughout thechamber	
10.	Heat up time &CoolDowntime	• 30min. up to60 ° Cwithout load. • 40min. up to+5 °C without load	
11.	Timer	• 0to24hrsX7dayscyclicON/OFFtimerforilluminatingport	
12.	SafetyAlarms	Provision for audio-visual alarm toindicate • Dooropeningafter 2 min. • Self-diagnosisfunctionincludingoverheat • Prevention and overcurrentProtection	
13.	Computer Interface	RS485/RS232interfaceformultiple&singlecommunication port	
14.	Voltagestabilizer	AutomaticStabilizer,4KVAwithTDR(3minutes)electronictype	
15.	DocumentsCertificatesPerformance andsafety standards(specific to thedevice type);Localand/orinternational	• ShouldbeFDA/CE/BISapprovedproduct. • Manufacturer and Supplier shouldhaveISO13485certificationunderISO9001for qualitystandards. • Electrical safety conforms to thestandardsforelectricalsafetyIEC60601- General requirements (orequivalentBIS Standard) • Certified to be compliant with IEC61010-1,IEC61010-2-40forsafety • Complete with IQ, OQ, PQ,Documents, Operations andMaintenancemanuals	
16.	Supplier/Manufacturer	• Mustbe ISO certified forquality	
17.	Service contractclauses, includingprices	• List of all spares and accessories(including minor) with part numbers andprice, required for maintenance andrepairs in future after guarantee/warrantyperiodshould be attached;	

18.	Operatingmanuals, servicemanuals, othermanuals	Should provide 2 sets (hardcopy and soft-copy) of: - • User,technicalandmaintenancemanuals	

		tobesuppliedinEnglishlanguagealongwithmachine diagrams; • List of equipment and proceduresrequiredforlocalcalibrationandroutinemaintenance; • Serviceandoperationmanuals(originaland copy) to beprovided; • Advanced maintenance tasksdocumentation; • Certificateofcalibration andinspection	
19.	Warranty	• Warranted for 3 years after satisfactoryinstallationand workingexcluding consumablepartsand accessories.	
20.	Comprehensive Maintenance	Comprehensive Maintenance of theequipment supplied, installed,commissioned for 60 months after 3yearWarranty/Defects Liability Period. Thiswill include yearly calibration start-up /commissioningroutineservicing,regular maintenance, preventive maintenance ofequipment and components and breakdown repairs as and when occurring,ensuring that system does not remain outof service for a period more than 24hoursincaseofmajor breakdownsand 6-8hourinthecaseofminorbreakdownsdue to any unforeseen break down. TheinstitutionwillprovideWater/Electricity power, etc. for maintenancework. The successful tenderer shall keepthe essential spares at site during theContract Period to avoid the delay inattendingfaults / maintenance	
21.	Operationmaintenance& training	The supplier will have to carry outsuccessful installation at our laboratorypremises (where ever the system has tobe installed) and provide on – sitecomprehensive training for scientificpersonnel operating the system andsupportservicestillcustomersatisfaction withthesystem.	

22.	Payment	Payment only after installation,validation and performancedemonstration	

Fumigator

Sl.No.	Specifications	Requirement	Yes/No
1.	**Capacity**	• 5liters with easycleaningfacility	
2.	**Materialofc onstruction**	• Bodyshouldbecompact,durable,leakpr oofand madeofstainless steel /heavydutyplastic	
3.	**Particlesize**	• It should produce aerosols with particlesizeof less than 5 microns • The blower head should be rust proofinerttoFormaldehyde,KMnO4,H2 O2 anddeliveraerosolsuniformly.	
4.	**Unit**	• It should be compatible with alldisinfectant solutions usualconcentration. • It should be compatible with maximumpHrange(bothacid and alkali). • Theequipmentshouldbeofgoodqu ality and conform to national/internationalstandards.	
5.	**Powersupply**	• The machine should operate on 220 +- 10volts, 50Hz, single phase,A.C • ProvidedwithCableshouldbeatleast5m eters inlength,ISImarked.	
6.	**Operation**	• Thedischargerateshouldnotbelesstha n1Liter/25 minutes. • The tank capacity, discharge rate andtimer on the machine should be so thatthe disinfectant should be able todisinfect 4000-5000 cubic feet in onecycleof2 hours (max).	
7.	**Operation andtrainingco mponent**	• The supplier will have to carry outsuccessfuldemonstrationatthelaborator ypremises(whereeverthesystemhastobein stalled) and provide on – sitecomprehensivetrainingforaminimumo ftwoscientificpersonneloperatingthe systemtillcustomersatisfaction	
8.	**Warranty**	• Warranted for 3 years after satisfactoryworkingexcludingconsumabl epartsandaccessories.	

9.	Service contractclauses, includingprices	• List of all spares and accessories (includingminor)withpartnumbersandprice, requiredformaintenanceandrepairsin	

		future after guarantee/warranty periodshouldbeattached;	
10.	Operatingmanuals, servicemanuals, othermanuals	Should provide 2 sets (hardcopy and soft-copy)of: - • User, technicalandmaintenance manualsto be supplied in English language alongwithmachine diagrams; • Serviceandoperationmanuals(originalandcopy) to beprovided; • Advanced maintenance tasksdocumentation;	
11.	Payment	Payment only after satisfactoryperformancedemonstration	

Micropipettes(*6No's)

Sno.	Specifications	Requirement	Yes/No
1	**Material**	Liquid handling equipment,Auto-cleavable	
2	**Capacity /Volume**	20-200 micro liter (Variable)100-1000 micro liter (Variable)1-10ml(Variable) *2each	
3	**Feature**	• Single – channel/manual • Volume lock topreventdriftin g	
4	**Accessory**	Tips, Tip boxes	
5	**Calibration**	Certificate from NABLaccreditedlabfor3poi nts	
6	**Warranty**	2years	

Digital Water Bath for TS-12 holes

S.No.	Specifications	Requirement	Yes/No
1	**Application**	Required to Evaporation of excess water from samples during total solids analysis.	
2	**OperationalRequirements**	Itshouldhave • Reading of the Hot water bath Temperature bydigitaldisplay • Minimum height/depth for water shall be 10 cm • Alarm for water level with Auto cut off	
3.	**TechnicalSpecifications**	• Power supply 200-240V, 50 Hz, Single phase • Double walled, filled with high grade insulation. • Thermostatically controlled with an accuracy of ±1◦ C • 12 nos. of hole in lid • Each hole diameter minimum 7.5 cm • Sufficient space of 2 to 3 cm between holes accepted • Weighingcapacityupto220g Readability 0.1 mgRepeatability1mgorless.Settingtime 1.5 secs.	
4.	**Hot water Bathshouldhave**	• Leak Proof • inner side and outer side made of stainless steel (AISI 304)	

5.	**Accessories**	• Allnecessaryaccessoriesshould be provided withunit.	

6.	**Calibrationcertificate**	CertificatefromaISO17025accredited lab	
7.	**Operation and trainingcomponent**	• The supplier will have to carryoutsuccessfulInstallationatthelaboratorypremises(whereeverthe system has to be installed)and provide on – sitecomprehensive training for aminimum of two scientificpersonneloperatingthe system tillcustomersatisfaction	
8.	Certificates Performance andsafety standards (specific to thedevice type);Local and/orinternational	• ShouldbeFDA/CE/BISapprovedproduct. • Manufacturer and Suppliershould have ISO 13485certification under ISO9001forqualitystandards. • Electrical safety conformsto the standards forelectrical safety IEC 60601-General requirements (orequivalentBISStandard)	
9	Supplier/Manufacturer	• MustbeISOcertifiedforquality	
10	Service Support Contact details(Hierarchy Wise; including atollfree/landlinenumber)	• Contact details ofmanufacturer, supplier andlocal service agent to beprovided; Any Contract(AMC/CMC/adhoc)tobe declaredbythe manufacturer;	
11	Recommendationsorwarnings	• Any warning signs wouldbeadequatelydisplayed	
12	**Warranty**	• Warranted for 1 years aftersatisfactory installation andworking excludingconsumable parts andaccessories.	

13	Servicecontractclauses,including prices	• Listofallsparesandaccessories(including minor)withpartnumbersandprice,requiredformaintenanceandrepairsinfutureafterguarantee/warranty periodshouldbeattached;	
14	Operating manuals, servicemanuals,othermanuals	Should provide 2 sets (hardcopy andsoft-copy)of: - • User, technical andmaintenancemanualstobesuppliedinEnglishlanguagealongwith machinediagrams; • Listofequipmentandproceduresrequiredforlocalcalibrationandroutinemaintenance; • Service and operation manuals(originalandcopy)tobeprovided; • Advancedmaintenancetasksdocumentation; • Certificateofcalibrationandinspection	
15	**Payment**	Payment only after installation,validation and performancedemonstration	

Hot Plate Larger (Vertical)

S.No.	Specifications	Requirement	Yes/No
1	**Application**	Required for laboratory work	
2.	**TechnicalSpecifications**	• Power supply 220-240V, 50 Hz, Single phase • 300 x 455mm • Microprocessor Based PID Digital Temperature Controller Cum Indicatorwith an accuracy of ±1◦ C • Continues Heating Upto 350°c • Heating element Placed Underneath Insulated	
3.	**Hot Plateshouldhave**	• Mild Steel Sheet Duly Powder Coated • Vertical	
4.	**Accessories**	• Allnecessaryaccessoriess hould be provided withunit.	
5.	**Calibrationcertificate**	CertificatefromaISO17025ac credited lab	
6	**Operation and trainingcomponent**	• The supplier will have to carryoutsuccessfulInstallationat thelaboratorypremises(whereev erthe system has to be installed)and provide on – sitecomprehensive training for aminimum of two scientificpersonneloperatingthe system tillcustomersatisfaction	

7	Certificates Performance andsafety standards (specific to thedevice type);Local and/orinternational	• ShouldbeFDA/CE/BISapprovedproduct. • Manufacturer and Suppliershould have ISO 13485certification under ISO9001forqualitystandards. • Electrical safety conformsto the standards forelectrical safety IEC 60601-General requirements (orequivalentBISStandard)	
8	Supplier/Manufacturer	• MustbeISOcertifiedforquality	
9	Service Support Contact details(Hierarchy Wise; including atollfree/landlinenumber)	• Contact details ofmanufacturer, supplier andlocal service agent to beprovided; Any Contract(AMC/CMC/adhoc)tobe declaredbythe manufacturer;	
10	Recommendationsorwarnings	• Any warning signs wouldbeadequatelydisplayed	
11	**Warranty**	• Warranted for 1 years aftersatisfactory installation andworking excludingconsumable parts andaccessories.	

12	Servicecontractclauses,including prices	• Listofallsparesandaccessories(includingminor)withpartnumbersandprice,requiredformaintenanceandrepairsinfutureafterguarantee/warranty periodshouldbeattached;	

13	Operating manuals, servicemanuals,othermanuals	Should provide 2 sets (hardcopy andsoft-copy)of: - • User, technical andmaintenancemanualstobesuppliedinEnglishlanguagealongwith machinediagrams; • Listofequipmentandproceduresrequiredforlocalcalibrationandroutinemaintenance; • Service and operation manuals(originalandcopy)tobeprovided; • Advancedmaintenancetasksdocumentation; • Certificateofcalibrationandinspection	
14	**Payment**	Payment only after installation,validation and performancedemonstration	

Hot Plate Small (Round)

S.No.	Specifications	Requirement	Yes/No
1	**Application**	Required for laboratory work	
2.	**TechnicalSpecifications**	• Power supply 220-240V, 50 Hz, Single phase • Diameter minimum 20 cm • Microprocessor Based PID Digital Temperature Controller Cum Indicatorwith an accuracy of ±5◦ C • Continues Heating Upto 350^{o}c • Heating element Placed Underneath Insulated	
3.	**Hot Plateshouldhave**	• Mild Steel Sheet Duly Powder Coated • Round	
4.	**Accessories**	• All necessary accessories should be provided with unit.	
5.	**Calibration certificate**	Certificate from a ISO 17025 accredited lab	
6	**Operation and trainingcomponent**	• The supplier will have to carryoutsuccessfulInstallationat thelaboratorypremises(whereev erthe system has to be installed)and provide on – sitecomprehensive training for aminimum of two scientificpersonneloperatingthe system tillcustomersatisfaction	

7	Certificates Performance andsafety standards (specific to thedevice type);Local and/orinternational	• ShouldbeFDA/CE/BISapprovedproduct. • Manufacturer and Suppliershould have ISO 13485certification under ISO9001forqualitystandards. • Electrical safety conformsto the standards forelectrical safety IEC 60601-General requirements (orequivalentBISStandard)	
8	Supplier/Manufacturer	• MustbeISOcertifiedforquality	
9	Service Support Contact details(Hierarchy Wise; including atollfree/landlinenumber)	• Contact details ofmanufacturer, supplier andlocal service agent to beprovided; Any Contract(AMC/CMC/adhoc)tobe declaredbythe manufacturer;	
10	Recommendationsorwarnings	• Any warning signs wouldbeadequatelydisplayed	
11	**Warranty**	• Warranted for 1 years aftersatisfactory installation andworking excludingconsumable parts andaccessories.	

12	Servicecontractclauses,including prices	• Listofallsparesandaccessories(includingminor)withpartnumbersandprice,requiredformaintenanceandrepairsinfutureafterguarantee/warranty periodshouldbeattached;	

13	Operating manuals, servicemanuals,othermanuals	Should provide 2 sets (hardcopy andsoft-copy)of: - • User, technical andmaintenancemanualstobesuppliedinEnglishlanguagealongwith machinediagrams; • Listofequipmentandproceduresrequiredforlocalcalibrationandroutinemaintenance; • Service and operation manuals(originalandcopy)tobeprovided; • Advancedmaintenancetasksdocumentation; • Certificateofcalibrationandinspection	
14	**Payment**	Payment only after installation,validation and performancedemonstration	

Electrical Hot Plate with Magnetic stirrer

S.No.	Specifications	Requirement	Yes/No
1	**Application**	Required for laboratory work	
2.	**TechnicalSpecifications**	• Power supply 210-240V, 50 Hz, Single phase • One stirring position • Stirring quantity minimum 5 Liters • Operating speed range 1200 rpm • Microprocessor Based PID Digital Temperature Controller Cum Indicatorwith an accuracy of ±1◦ C • Heating element Placed Underneath Insulated • Ambient to 300◦ C heating temp range	
3.	**Hot Plateshouldhave**	• Round • Stainless Steel (AISI 304)	
4.	**Accessories**	• Allnecessaryaccessoriess hould be provided withunit.	
5.	**Calibrationcertificate**	CertificatefromaISO17025ac credited lab	
6	**Operation and trainingcomponent**	• The supplier will have to carryoutsuccessfulInstallationat thelaboratorypremises(whereev erthe system has to be installed)and provide on – sitecomprehensive training for aminimum of two scientificpersonneloperatingthe system tillcustomersatisfaction	

7	Certificates Performance andsafety standards (specific to thedevice type);Local and/orinternational	• ShouldbeFDA/CE/BISapprovedproduct. • Manufacturer and Suppliershould have ISO 13485certification under ISO9001forqualitystandards. • Electrical safety conformsto the standards forelectrical safety IEC 60601-General requirements (orequivalentBISStandard)	
8	Supplier/Manufacturer	• MustbeISOcertifiedforquality	
9	Service Support Contact details(Hierarchy Wise; including atollfree/landlinenumber)	• Contact details ofmanufacturer, supplier andlocal service agent to beprovided; Any Contract(AMC/CMC/adhoc)tobe declaredbythe manufacturer;	
10	Recommendationsorwarnings	• Any warning signs wouldbeadequatelydisplayed	
11	**Warranty**	• Warranted for 1 years aftersatisfactory installation andworking excludingconsumable parts andaccessories.	

12	Servicecontractclauses,including prices	• Listofallsparesandaccessories(includingminor)withpartnumbersandprice,requiredformaintenance andrepairsinfutureafterguarantee/warranty periodshouldbeattached;	

13	Operating manuals, servicemanuals,othermanuals	Should provide 2 sets (hardcopy andsoft-copy)of: - • User, technical andmaintenancemanualstobesuppliedinEnglishlanguagealongwith machinediagrams; • Listofequipmentandproceduresrequiredforlocalcalibrationandroutinemaintenance; • Service and operation manuals(originalandcopy)tobeprovided; • Advancedmaintenancetasksdocumentation; • Certificateofcalibrationandinspection	
14	**Payment**	Payment only after installation,validation and performancedemonstration	

HotAirOven

S.No.	Specifications	Requirement	Yes/No
1.	**Application**	For dryingglassware andalso forconditioning of heat sensitive mediaand to provide an optimal,homogeneous,temperatureuniformity andstabilitytoensuredryingiscomplete	
2.	**Material ofconstruction**	• Should have double walledconstruction, with high qualityinsulated steel. Inner walls of 304qualities SS, Outer walls ofEpoxyPowder coated GI sheets. • Facilityforadjustableshelves,3 to 4 removableshelvestobeprovided. • With internal lighting facility,Insulated door fitted with heavyhinges,mechanicaldoorlock.	
3.	**Capacity**	• Approx.200liters	
4.	**Temperaturerange**	• Temperature should bethermostaticallycontrolled • It should be Ambient +5°C to250°C with temperature settingaccuracy±0.5°Cwithforcedaircirculation for temperatureuniformity • Separate PT 100 sensor anddisplayfortemperature(LED) • Safetyalarms	
5.	**Unit**	• Air ventilators to be provided onboth side • The equipment should beproviding with microprocessorcontrolleddigital display • Temperature homogeneitybetween top and bottom shelvesshould be maintained by forcedcirculation	

6.	**Calibration**	• CertificatefromaISO17025ac credited lab for 3 differenttemperaturepoints	
7.	**Powersupply**	• Allelectricalperipherals	

		requiredforsmoothfunctioning e.g. voltage stabilizers should beprovided.	
8.	**Accessories**	• Should have all the accessoriesrequired for the functioning oftheequipment.	
9.	CertificatesPerformance andsafety standards(specifictotheedevicetype);Local and/orinternational	• ShouldbeFDA/CE/BISapprovedproduct. • Manufacturer andSupplier should have ISO 13485certification under ISO 9001forqualitystandards. • Electrical safetyconforms to the standards forelectrical safety IEC 60601-General requirements (orequivalentBISStandard)	
10.	Supplier/Manufacturer	• MustbeISOcertifiedforquality	
11.	Service SupportContact details(Hierarchy Wise;including a tollfree/landlinenumber)	• Contact details ofmanufacturer, supplier and localservice agent to be provided;Any Contract(AMC/CMC/adhoc)to be declaredbythe manufacturer;	
12.	Recommendationsor warnings	• Any warning signswouldbeadequatelydisplayed	
13.	Warranty	• Warranted for 2 years aftersatisfactory working excludingconsumablepartsandaccessories.	
14.	Service contractclauses, includingprices	• List of all spares and accessories(including minor) with part numbersand price, required for maintenanceandrepairs in futureafter guarantee/warrantyperiodshouldbeattached;	

15.	Operating manuals,service manuals,othermanuals	Should provide 2 sets (hardcopy andsoft-copy)of:- • User, technical and maintenancemanuals to be supplied in Englishlanguage along with machinediagrams; • Serviceandoperationmanuals	

		(originalandcopy)tobe provided; • Advanced maintenance tasksdocumentation;	
16.	Payment	Payment only after satisfactoryperformancedemonstration	

Muffle furnace

S.No.	Specifications	Requirement	Yes/No
1.	**Application**	For Analysis of ash content in milk & milk products samples	
2.	**Material ofconstructi on& Size**	The inner chamber should be of ceramic pot or other suitable material and outer shell of thick mild steel sheet, Corrosion and rust free SS housing. • Minimum size of inner chamber should be 15 x 15 x 30 cm (W x H x D)	
3.	Heating element	• Shall be made of high quality & brandedNichrome/Kanthal Al or suitable material • Heating element should be wounded with high grade insulation material.	
4.	**Temperaturerange**	• 200 - 900 ^{o}c or higher • Temperature control accuracy±5 ^{o}c or better • Temperature uniformity±5 ^{o}c or better	
5.	**Unit**	• Muffle should have microprocessor based digital temp controller cum indicator and programmable **PID** controller.Temperature homogeneitybetween top and bottom shelvesshould be maintained by forcedcirculation • It should have digital LED/ LCD display to show actual and set point temperature • System should have the facility to give electronic alarm / warning in case of temperature exceeds ± 5^{0}C	

		from the set temperature. Thermocouple fuses/silverfuses and door safety switch.	
6.	**Calibration**	• CertificatefromaISO17025accredited lab	
7.	**Powersupply**	Allelectricalperipherals requiredforsmoothfunctioning.	

8.	**Accessories**	• Should have all the accessoriesrequired for the functioning oftheequipment.	
9.	CertificatesPerformance andsafety standards(specifictothedevicetype);Local and/orinternational	• ShouldbeFDA/CE/BISapprovedproduct. • Manufacturer andSupplier should have ISO 13485certification under ISO 9001forqualitystandards. • Electrical safetyconforms to the standards forelectrical safety IEC 60601-General requirements (orequivalentBISStandard)	
10.	Supplier/Manufacturer	• MustbeISOcertifiedforquality	
11.	Service SupportContact details(Hierarchy Wise;including a tollfree/landlinenumber)	• Contact details ofmanufacturer, supplier and localservice agent to be provided;Any Contract(AMC/CMC/adhoc)to be declaredbythe manufacturer;	
12.	Recommendationsor warnings	• Any warning signswouldbeadequatelydisplayed	
13.	Warranty	• Warranted for 2 years aftersatisfactory working excludingconsumablepartsandaccessories.	

14.	Service contractclauses, includingprices	• List of all spares and accessories(including minor) with part numbersand price, required for maintenanceandrepairs in futureafter guarantee/warrantyperiodshouldbeat tached;	
15.	Operating manuals,service manuals,othermanu als	Should provide 2 sets (hardcopy andsoft-copy)of: - • User, technical and maintenancemanuals to be supplied in Englishlanguage along with machinediagrams; • Serviceandoperationmanuals originalandcopy)tobe provided; • Advanced maintenance tasksdocumentation;	

16.	Payment	Payment only after satisfactoryperformancedemon stration	

Puncture Resistance Tester machine

S.No.	Specifications	Requirement	Yes/No
1	**Application**	Required to determine the resistance to puncture of paper and paperboard material.	
2	**OperationalRequirements**	Itshouldhave • Microprocessor based Digital Display • Single handed hassle free operation • Display for absorbed/impact energy and angle of test specimen • Oscillatory pendulum release mechanism • Inbuilt calibration facility	
3.	**TechnicalSpecifications**	• Energy range of weights: 6, 12, 24, 48 J • Accuracy: ±2% within entire range • Release angle of pendulum: 90◦ • Power: 220V, 50Hz, Single Phase	
3.	**Instrumentshouldhave**	• High quality rugged structure with corrosion resistance main body	
4.	**Environmentalfactors**	• The unit shall be capable ofoperating in ambienttemperature of 20-40 deg Cand relative humidity of80%.	
5	**Accessories**	• Allnecessaryaccessoriess hould be provided withunit.	
6.	**Calibrationcertificate**	CertificatefromaISO17025ac credited lab	

7	**Operation and trainingcomponent**	• The supplier will have to carryoutsuccessfulInstallationat thelaboratorypremises(whereev erthe system has to be installed)and provide on – sitecomprehensive training for aminimum of two scientificpersonneloperatingthe system tillcustomersatisfaction	
8	Certificates Performance andsafety standards (specific to thedevice type);Local and/orinternational	• ShouldbeFDA/CE/BISa pprovedproduct. • Fulfill IS 4006 1987 (PART-2),TAPPI-T083, ISO 3036 & ASTM D781requirment	
9	Supplier/Manufacturer	• MustbeISOcertifiedforqu ality	
10	Service Support Contact details(Hierarchy Wise; including atollfree/landlinenumber)	• Contact details ofmanufacturer, supplier andlocal service agent to beprovided; Any Contract(AMC/CMC/adh oc)tobe declaredbythe manufacturer;	
11	Recommendationsorwarnings	• Any warning signs wouldbeadequatelydispla yed	
12	**Warranty**	• Warranted for 1 years aftersatisfactory installation andworking excludingconsumable parts andaccessories.	

13	Servicecontractclauses,i ncludingprices	• Listofallsparesandaccessories(in cludingminor)withpartnumbersa ndprice,requiredformaintenance andrepairsinfutureafterguarante e/warranty periodshouldbeattached;	

14	Operating manuals, servicemanuals,othermanuals	Should provide 2 sets (hardcopy andsoft-copy)of: - • User, technical andmaintenancemanualstobesuppliedinEnglishlanguagealongwith machinediagrams; • Listofequipmentandproceduresrequiredforlocalcalibrationandroutinemaintenance; • Service and operation manuals(originalandcopy)tobeprovided; • Advancedmaintenancetasksdocumentation; • Certificateofcalibrationandinspection	
15	**Payment**	Payment only after installation,validation and performancedemonstration	

Bursting Strength Tester machine

S.No.	Specifications	Requirement	Yes/No
1	**Application**	Required to measure for the force required for bursting or complete rupture of paper and paperboard material.	
2	**OperationalRequirements**	Itshouldhave • Digital indication of readings • Tare facility incorporated • Microprocessor based with original Intel chip • Single push bottom operation • Strong gripping clamps	
3.	**TechnicalSpecifications**	• Pressure range: 40Kg/cm square • Least count: 0.1Kg/cm square • Accuracy: ±1% • Motor: 0.5 HP, single phase • Test Fluid: Glycerin	
3.	**Instrumentshouldhave**	• High quality rugged structure with corrosion resistance main body	
4.	**Environmentalfactors**	• The unit shall be capable ofoperating in ambienttemperature of 20-40 deg Cand relative humidity of80%.	
5	**Accessories**	• Allnecessaryaccessoriess hould be provided withunit.	
6.	**Calibrationcertificate**	CertificatefromaISO17025ac credited lab	

7	**Operation and trainingcomponent**	• The supplier will have to carryoutsuccessfulInstallationat thelaboratorypremises(whereev erthe system has to be installed)and provide on – sitecomprehensive training for aminimum of two scientificpersonneloperatingthe system tillcustomersatisfaction	
8	Certificates Performance andsafety standards (specific to thedevice type);Local and/orinternational	• ShouldbeFDA/CE/BISa pprovedproduct. • Fulfill IS 1060-1987, ISO 2758, ISO 3689-1983& ASTM D3786 etc requirement	
9	Supplier/Manufacturer	• MustbeISOcertifiedforqu ality	
10	Service Support Contact details(Hierarchy Wise; including atollfree/landlinenumber)	• Contact details ofmanufacturer, supplier andlocal service agent to beprovided; Any Contract(AMC/CMC/adh oc)tobe declaredbythe manufacturer;	
11	Recommendationsorwarnings	• Any warning signs wouldbeadequatelydispla yed	
12	**Warranty**	• Warranted for 1 years aftersatisfactory installation andworking excludingconsumable parts andaccessories.	

13	Servicecontractclauses,i ncludingprices	• Listofallsparesandaccessories(in cludingminor)withpartnumbersa ndprice,requiredformaintenance andrepairsinfutureafterguarante e/warranty periodshouldbeattached;	

14	Operating manuals, servicemanuals,othermanuals	Should provide 2 sets (hardcopy andsoft-copy)of: - • User, technical andmaintenancemanualstobesuppliedinEnglishlanguagealongwith machinediagrams; • Listofequipmentandproceduresrequiredforlocalcalibrationandroutinemaintenance; • Service and operation manuals(originalandcopy)tobeprovided; • Advancedmaintenancetasksdocumentation; • Certificateofcalibrationandinspection	
15	**Payment**	Payment only after installation,validation and performancedemonstration	

AnalyticalBalance
(220gm)

Make: - Mettler Toledo,Minebaintec(formally known as Sartorious), A & D Techno.,Radwag

S.No.	Specifications	Requirement	Yes/No
1	**Application**	Required to measures mass to ahigh degree of precision with a**weighing** capacity typically 220 gand a readability of 0.1 mg – 0.001mg and protected by a draft shieldoran enclosure.	
2	**OperationalRequirements**	Itshouldhave • Microprocessorbasedsinglep an top loading analyticalbalance with high accuracyandprecision. • Reading of the weight bydigitaldisplay • Balancewithtransparentc ase. • Weighing with automaticand manual start andprovisionfordatainterfac e.	
3.	**TechnicalSpecifications**	• Weighaccuratelyupto3rdde cimalplace. • Fully automatic time andtemperature controlledinternal calibration andbalanceshouldbecapab leto adjust itself Auto zerosetting. • Weighingcapacityupto2 20g Readability 0.1 mgRepeatability1mgorles s.Settingtime 1.5 secs.	
4.	**Balanceshouldhave**	• Fastdismantlingchamberf oreasyclean up	

5.	**Environmentalfactors**	• Safetyforelectromagneticc ompatibility. • The unit shall be capable ofoperating in ambienttemperature of 20-40 deg Cand relative humidity of80%.	

6.	**Accessories**	• Allnecessaryaccessoriess hould be provided withunit.	
7.	**Calibrationcertificate**	CertificatefromaISO17025ac credited lab for 3 differentweights.	
8	**Operation and trainingcomponent**	• The supplier will have to carryoutsuccessfulInstallationat thelaboratorypremises(whereev erthe system has to be installed)and provide on – sitecomprehensive training for aminimum of two scientificpersonneloperatingthe system tillcustomersatisfaction	
9	Certificates Performance andsafety standards (specific to thedevice type);Local and/orinternational	• ShouldbeFDA/CE/BISa pprovedproduct. • Manufacturer and Suppliershould have ISO 13485certification under ISO9001forqualitystandar ds. • Electrical safety conformsto the standards forelectrical safety IEC 60601-General requirements (orequivalentBISStandard) • Certifiedtobecompliantw ith IEC61010-1,IEC61010-2-40 forsafety	
10	Supplier/Manufacturer	• MustbeISOcertifiedforqu ality	

11	Service Support Contact details(Hierarchy Wise; including atollfree/landlinenumber)	• Contact details ofmanufacturer, supplier andlocal service agent to beprovided; Any Contract(AMC/CMC/adh oc)tobe declaredbythe manufacturer;	
12	Recommendationsorwarnings	• Any warning signs wouldbeadequatelydispla yed	
13	**Warranty**	• Warranted for 3 years aftersatisfactory installation andworking excludingconsumable parts andaccessories.	

14	Servicecontractclauses,i ncludingprices	• Listofallsparesandaccessories(in cludingminor)withpartnumbersa ndprice,requiredformaintenance andrepairsinfutureafterguarante e/warranty periodshouldbeattached;	
15	Operating manuals, servicemanuals,othermanu als	Should provide 2 sets (hardcopy andsoft-copy)of: - • User, technical andmaintenancemanualstobesup pliedinEnglishlanguagealongwit h machinediagrams; • Listofequipmentandproceduresr equiredforlocalcalibrationandro utinemaintenance; • Service and operation manuals(originalandcopy)tobep rovided; • Advancedmaintenancetasksdoc umentation; • Certificateofcalibrationandinspe ction	
16	**Payment**	Payment only after installation,validation and performancedemonstration	

AnalyticalBalance
(300gm)

Make:- Citizen, Acezet, Mettler Toledo,Minebaintec(formally known as Sartorious), A & D Techno.,Radwag

S.No.	Specifications	Requirement	Yes/No
1	**Application**	Required to checking purity/adulteration of Ghee & Butter.	
2	**OperationalRequirements**	Itshouldhave • Automatic & Accurate. • Large, easy to read display • Balancewithtransparentc ase. • Weighing with automaticand manual start andprovisionfordatainterfac e.	
3.	**TechnicalSpecifications**	• Weighaccuratelyupto3rdde cimalplace. • Fully automatic time andtemperature controlledinternal calibration andbalanceshouldbecapab leto adjust itself Auto zerosetting. • Weighingcapacityupto3 00g • Readability 0.1 mg • Repeatability1mgorless. Settingtime 1.5 secs.	
4.	**International Protection Class**	• 006P dry battery (9V)	

5.	**Accessories**	• Allnecessaryaccessoriess hould be provided withunit.	

6.	**Calibrationcertificate**	CertificatefromaISO17025accredited lab	
7.	Operation and trainingcomponent	• The supplier will have to carryoutsuccessfulInstallationatthelaboratorypremises(whereeverthe system has to be installed)and provide on – sitecomprehensive training for aminimum of two scientificpersonneloperatingthe system tillcustomersatisfaction	
8.	Certificates Performance andsafety standards (specific to thedevice type);Local and/orinternational	• ShouldbeFDA/CE/BISapprovedproduct. • Manufacturer and Suppliershould have ISO 13485certification under ISO9001forqualitystandards. • Electrical safety conformsto the standards forelectrical safety IEC 60601-General requirements (orequivalentBISStandard) • Certifiedtobecompliantwith IEC61010-1,IEC61010-2-40 forsafety	
9.	Supplier/Manufacturer	• MustbeISOcertifiedforquality	
10.	Service Support Contact details(Hierarchy Wise; including atollfree/landlinenumber)	• Contact details ofmanufacturer, supplier andlocal service agent to beprovided; Any Contract(AMC/CMC/adhoc)tobe declaredbythe manufacturer;	
11.	Recommendationsorwarnings	• Any warning signs wouldbeadequatelydisplayed	

12.	**Warranty**	• Warranted for 2 years aftersatisfactory installation andworking excludingconsumable parts andaccessories.	

12.	Servicecontractclauses,including prices	• Listofallsparesandaccessories(including minor)withpartnumbersandprice,requiredformaintenance andrepairsinfutureafterguarantee/warranty periodshouldbeattached;	
13.	Operating manuals, servicemanuals,othermanuals	Should provide 2 sets (hardcopy andsoft-copy)of: - • User, technical andmaintenancemanualstobesuppliedinEnglishlanguagealongwith machinediagrams; • Listofequipmentandproceduresrequiredforlocalcalibrationandroutinemaintenance; • Service and operation manuals(originalandcopy)tobeprovided; • Advancedmaintenancetasksdocumentation; • Certificateofcalibrationandinspection	
14.	**Payment**	Payment only after installation,validation and performancedemonstration	

Digital Analytical Moisture Analyzer

Make:- Mettler Toledo,Minebaintec(formally known as Sartorious), A & D Techno.,Radwag

S.No.	Specifications	Requirement	Yes/No
1	**Application**	Required to measure moisture content of Butter & other dairy products.	
2	**OperationalRequirements**	Itshouldhave • Automatic & Accurate. • Large, easy to read display • Weighing with automaticand manual start andprovisionfordatainter face.	
3.	**TechnicalSpecifications**	• Sample Pan Size: Dia 90 to 130 mm • Minimum display in weighing- 0.001g • Measurement Range of moisture0.01% to 99% or better • Moisture contentminimum display- 0.01% • Maximum sample capacity- 50 gm • Setting Temp. range 50◦ C to 150◦ C or higher	
4.	**Drying Programs & heater**	• Standard/rapid drying programs • Mid-Way infrared quartz heater or halogen heater	
5.	**Accessories**	• Allnecessaryaccessoriess hould be provided withunit.	
6.	**Calibrationcertificate**	CertificatefromaISO17025ac credited lab	

7.	Operation and trainingcomponent	• The supplier will have to carryoutsuccessfulInstallationat thelaboratorypremises(whereev erthe system has to be installed)and provide on – sitecomprehensive training for aminimum of two scientificpersonneloperatingthe system tillcustomersatisfaction	
8.	Certificates Performance andsafety standards (specific to thedevice type);Local and/orinternational	• ShouldbeFDA/CE/BISa pprovedproduct. • Manufacturer and Suppliershould have ISO 13485certification under ISO9001forqualitystandar ds. • Electrical safety conformsto the standards forelectrical safety IEC 60601-General requirements (orequivalentBISStandard) • Certifiedtobecompliantw ith IEC61010-1,IEC61010-2-40 forsafety	
9.	Supplier/Manufacturer	• MustbeISOcertifiedforqu ality	
10.	Service Support Contact details(Hierarchy Wise; including atollfree/landlinenumber)	• Contact details ofmanufacturer, supplier andlocal service agent to beprovided; Any Contract(AMC/CMC/adh oc)tobe declaredbythe manufacturer;	
11.	Recommendationsorwarnings	• Any warning signs wouldbeadequatelydispla yed	
12.	**Warranty**	• Warranted for 2 years aftersatisfactory installation andworking excludingconsumable parts andaccessories.	

12.	Servicecontractclauses,including prices	• Listofallsparesandaccessories(including minor)withpartnumbersandprice,requiredformaintenanceandrepairsinfutureafterguarantee/warranty periodshouldbeattached;	
13.	Operating manuals, servicemanuals,othermanuals	Should provide 2 sets (hardcopy andsoft-copy)of: - • User, technical andmaintenancemanualstobesuppliedinEnglishlanguagealongwith machinediagrams; • Listofequipmentandproceduresrequiredforlocalcalibrationandroutinemaintenance; • Service and operation manuals(originalandcopy)tobeprovided; • Advancedmaintenancetasksdocumentation; • Certificateofcalibrationandinspection	
14.	**Payment**	Payment only after installation,validation and performancedemonstration	

Digital BR Apparatus

Make: -ATAGO, Rudolph, Hanna instruments

S.No.	Specifications	Requirement	Yes/No
1	**Application**	Required to measures moisture in butter & milk products.	
2	**OperationalRequirements**	Itshouldhave • Microprocessorbasedsinglepan top loading analyticalbalance with high accuracyandprecision. • Reading of the moisture bydigitaldisplay • Balancewithtransparentcase. • Weighing with automaticand manual start andprovisionfordatainterface.	
3.	**TechnicalSpecifications**	• Measurement range- Butyro 30.0 to 90.0 RI 1.4450 to 1.4850 (converted at 40 Degree centigrade) • Sample Volume: 0.1 ml or more • Measurement Time: 3 Sec (Approximately) • Measurement Temp.: 10 to 50 Degree Centigrade (Automatic temperature compensation) • Measurement accuracy: Butyro ±0.5 (at 40◦ C) RI ±0.0003 (at 40◦ C)	
4.	**Balanceshouldhave**	• Fastdismantlingchamberf oreasyclean up	

5.	**Environmentalfactors**	• Safetyforelectromagneticc ompatibility. • The unit shall be capable ofoperating in ambienttemperature of 20-40 deg Cand relative humidity of80%.	

6	**Accessories**	• Allnecessaryaccessoriess hould be provided withunit.	
7.	**Calibrationcertificate**	CertificatefromaISO17025ac credited lab for 3 differentweights.	
8	**Operation and trainingcomponent**	• The supplier will have to carryoutsuccessfulInstallationat thelaboratorypremises(whereev erthe system has to be installed)and provide on – sitecomprehensive training for aminimum of two scientificpersonneloperatingthe system tillcustomersatisfaction	
9	Certificates Performance andsafety standards (specific to thedevice type);Local and/orinternational	• ShouldbeFDA/CE/BISa pprovedproduct. • Manufacturer and Suppliershould have ISO 13485certification under ISO9001forqualitystandar ds. • Electrical safety conformsto the standards forelectrical safety IEC 60601-General requirements (orequivalentBISStandard) • Certifiedtobecompliantw ith IEC61010-1,IEC61010-2-40 forsafety	
10	Supplier/Manufacturer	• MustbeISOcertifiedforqu ality	

11	Service Support Contact details(Hierarchy Wise; including atollfree/landlinenumber)	• Contact details ofmanufacturer, supplier andlocal service agent to beprovided; Any Contract(AMC/CMC/adhoc)tobe declaredbythe manufacturer;	
12	Recommendationsorwarnings	• Any warning signs wouldbeadequatelydisplayed	
13	**Warranty**	• Warranted for 3 years aftersatisfactory installation andworking excludingconsumable parts andaccessories.	

14	Servicecontractclauses,including prices	• Listofallsparesandaccessories(includingminor)withpartnumbersandprice,requiredformaintenance andrepairsinfutureafterguarantee/warranty periodshouldbeattached;	
15	Operating manuals, servicemanuals,othermanuals	Should provide 2 sets (hardcopy andsoft-copy)of: - • User, technical andmaintenancemanualstobesuppliedinEnglishlanguagealongwith machinediagrams; • Listofequipmentandproceduresrequiredforlocalcalibrationandroutinemaintenance; • Service and operation manuals(originalandcopy)tobeprovided; • Advancedmaintenancetasksdocumentation; • Certificateofcalibrationandinspection	
16	**Payment**	Payment only after installation,validation and performancedemonstration	

DigitalpH/mV meter

Make: -Mettler Toledo, Merck, Thermo Fisher,SI Analytics, Hash, Hanna Instruments

Sno.	Specifications	Requirement	Yes/No
1.	**Application**	Forresearchwithacomprehensivera nge of features and functions,making it suitable for generallaboratory, QC and GLP basedapplications.	
2.	**Unit**	**Consistingof**Tri-combinationpH/ATC electrode with anelectrode holder/arm with smoothmovementandprotectionco ver	
3.	WorkingpH Range	0 –14 pH	
4.	pHresolution	±0.01 pH	
5.	Mv	• Range0-± 1999 • Accuracy±1mV • Resolution1 mV	
6.	TemperatureC ompensation	0 to 100 ° C with ATC	
7.	Temperature	Range-10to+105°CResoluti on 0.1°CAccuracy±0.5° C ATCrange0to100°	
8.	CalibrationPoints	• Should have 3 stagecalibration with auto bufferrecognition • NIST traceable buffer set500mleach(pH4.0,7.0 &9.0).	
9.	Alarm	• Calibration reminderinterval(1 to 999hrs)	
10.	TemperatureC ompensation	• Automatic	
11.	Display	• BacklitblueLCDwitho perationicon • digitaldisplaywith0.001p Hunit readability	

12.	Accessories	• ExtraElectrode • NIST Standard buffersolution (pH 4.0, 7.0, 10.01 x500mlforeach bottle) • standardelectrodeholder • Ac/DCAdaptor.	
13.	Power	• 9VDC	
14.	Datastorage&Output	• Datastoragefacilityand	

		record maximum and minimumvalue. • RS.232C output and supplyDataconnector cable.	
15.	Documents CertificatesPerformance and safetystandards (specific tothe device type);Localand/orinternational	• ManufacturerandSuppliershouldhaveISO13485certification under ISO9001forqualitystandards. • Electrical safety conformsto the standards forelectrical safety IEC 60601-General requirements (orequivalentBISStandard) • Certifiedtobecompliantwith IEC61010-1,IEC61010-2-40 forsafety • Complete with IQ, OQ, PQ,Documents, Operations andMaintenancemanuals	
16.	Supplier/Manufacturer	• MustbeISOcertifiedforquality	
17.	Service contractclauses, includingprices	• List of all spares andaccessories(includingminor)with part numbers and price,required for maintenance andrepairs in future afterguarantee/warrantyperiod shouldbeattached;	

18.	Operating manuals,servicemanuals,othermanuals	Shouldprovide2sets (hardcopyandsoft-copy)of: - • User, technical andmaintenance manuals to besupplied in English languagealongwithmachinediagrams; • List of equipment andproceduresrequiredforlocalcalibration and routinemaintenance; • Serviceandoperationmanuals(original and copy) to beprovided;; • Certificateofcalibrationandinspection	
19.	Payment	Payment only after installation,validation and performancedemonstration	

DigitalTDS meter

Make: ATAGO, Hatch, Hanna Instruments, Eutech

Sno.	Specifications	Requirement	Yes/No
1.	**Application**	To determine total dissolved solids (Concentration of dissolved particles) in water	
2.	**Unit**	Unit is pocket type with should have provision of 3 point calibration and battery life should be minimum 150hrs of usage, auto power off function & waterproof	
3.	WorkingTDS Range	Selection mode for measurement in the range of 0-100 ppm, 1000 ppm (max 200 and 2000 ppm based on TDS factor 1.0), with adjustable TDS factor from 0.4 to 1.0 for accurate measurement	
4.	Sensor	Should be made up of SS-316 and replaceable at the user level	
5.	Accuracy	±1% of full scale	
6.	TemperatureRange	0 to 50 ° C with ATC	

7.	Display	LCD display for temperature and TDS	
8.	CalibrationStandards	• 1 set of 3 calibration standards for calibration of equipment preferably in the range of 50, 300 & 2000 ppm (Quantity 450ml each) are to be supplied with the equipment.	
9.	Accessories	• Extra3 nos. of sensor and spares.	

10.	Documents CertificatesPerformance and safetystandards (specific tothe device type);Localand/orinternational	• ManufacturerandSuppliershouldhaveISO13485certification under ISO9001forqualitystandards. • Electrical safety conformsto the standards forelectrical safety IEC 60601-General requirements (orequivalentBISStandard) • Certifiedtobecompliantwith IEC61010-1,IEC61010-2-40 forsafety • Complete with IQ, OQ, PQ,Documents, Operations andMaintenancemanuals	
11.	Supplier/Manufacturer	• MustbeISOcertifiedforquality	
12.	Service contractclauses, includingprices	• List of all spares andaccessories(includingminor)with part numbers and price,required for maintenance andrepairs in future afterguarantee/warrantyperiod shouldbeattached;	
13.	Operating manuals,servicemanuals,othermanuals	Shouldprovide2sets (hardcopyandsoft-copy)of: - • User, technical andmaintenance manuals to besupplied in English languagealongwithmachinediagrams; • List of equipment andproceduresrequiredforlocalcalibration and routinemaintenance; • Serviceandoperationmanuals(original and copy) to beprovided;; • Certificateofcalibrationandinspection	

14.	Payment	Payment only after installation,validation and performancedemonstration	

BUNDELKHAND SAHAKARI DUGDHA SANGH MARYADIT,
SIRONJA, SAGAR 470004

SCHEDULE – III

Form – A

(To be uploaded - mandatory)

To,
Chief Executive Officer
BKDSM, SAGAR

Dear Sir,
Please find enclosed herewith scan copy of EMD No……. dtd……. for Rs…… Bank Name……. towards EMD deposit. Original will be submitted before opening of tender.

Seal & Signature of the of the tenderer

BUNDELKHAND SAHAKARI DUGDHA SANGH MARYADIT,
SIRONJA, SAGAR 470004

SCHEDULE – III

Form – B
(To be uploaded -mandatory)

To,

Chief Executive Officer Date:
BKDSM, Sagar

Dear Sir,
I/We hereby furnish below some particulars about our company/unit which will form a part of our offer submission:

1. Name of the Co./Unit : _____
2. Address of the Co./Unit : _____
   _____
3. Telephone Nos.(with STD Code):_____
   FAX No. : _____
   Email ID : _____
4. Name of the CEO/Proprietor/ :_____
   Partner
5. Name and designation of other :_____
   Authorized signatory of the Co./Unit
6. Particulars of Regn. Certificate :_____
   Issued by the competent authority
   (Regn No. & Date)
7. We are manufacturer/distributor/dealer/supplier of …….Co.(with proof)
8. GST NO …… dtd……..
9. PAN Number (Permanent Account Number- Income Tax) :
10. Have your Co./Unit or its sister concern ever been black listed/ debarred by BSDSM or its sister Milk Unions or GOI /GOMP & its undertaking? YES / NO
11. Price Escalation: YES/NO

Seal & Signature of the

Authorized Signatory of the Co./Unit

(Copies enclosed)

- Form-A &B (scan copy to be uploaded)
- Tender document each page sealed and signed as token of acceptance to each and every terms and condition.

BUNDELKHAND SAHAKARI DUGDHA SANGH MARYADIT SIRONJA, SAGAR 470004

SCHEDULE – IV

Form – C
(To be uploaded - mandatory)

(PRICE BID)

TENDER NUMBER:	
NAME OF TENDERER:	

S. No.	DESCRIPTION	Rate/unit F.O.R Sager Dairy (GST Extra)

(Seal & Signature of the tenderer)