Annual Requirements (2025) - Dairy Technology Laboratory						
01.Chemicals, Reagents, Media, Glassware						
S.N	**Name of the Item**	**Specification**	**Pack size**	**QTY**	**Bidder's compliance Yes/ No**	**If "No" bidder's specifiations**
1	Sodium hydroxide	Analar grade	500g	12		
		Purity $\leq$ 98%				
		Form: pellets				
		Analysis reoprt should be provided				
		Catalogue should be provided				
		Delivery period should be mentioned				
2	Ethyl alcohol 96%	Grade: Analar	2.5L	2		
		Purity: 96%				
		Form: colourless liquid				
		Shelf Life: 3 years				
		Analysis reoprt should be provided				
		Catalogue should be provided				
		Delivery period should be mentioned				
3	Ethyl alcohol absolute	Grade : ACS reagent grade	2.5L	2		
		Purity: $\leq$ 99.5				
		Analysis reoprt should be provided				
		Catalogue should be provided				
		Delivery period should be mentioned				
4	Milk testing sulphuric acid	Specific Gravity 1.815 at 60^{0} F	2.5L	2		
		Shelf Life: 3 years				
		Analysis reoprt should be provided				
		Catalogue should be provided				
		Delivery period should be mentioned				
5	Sulphuric acid	Analar	2.5L	3		
		M= 98.07 g/mol				
		Assay Min.98.0%				
		Catalogue should be provided				
		Delivery period should be mentioned				
		Analysis reoprt should be provided				

6	Trichloro acetic acid	Analar Normapur	500g	1		
		Density 1.63kg/l				
		Assay 99.8 %				
		Melting Point 59^0C				
		Catalogue should be provided				
		Delivery period should be mentioned				
		Analysis reoprt should be provided				
7	Isopropyl alcohol 90% (v/v)	Boiling point 820C	1L	5		
		Melting point -900C				
		Delivery period should be mentioned				
		Analysis reoprt should be provided				
8	Isopropyl alcohol 70% (v/v)	Specific gravity @20^0C should be 0.87	1L	5		
		Assay by volume 68-72%				
		Delivery period should be mentioned				
		Analysis reoprt should be provided				
9	Nessler Reagent	Color - yellow	100ml	2		
		Boiling point- 100^0C				
		Water soluble				
		Delivery period should be mentioned				
		Analysis reoprt should be provided				
10	Phenol crystal	Melting point -390C	250g	1		
		Color-colorless to white				
		pH-6				
		Packaging-glass bottle				
		Formular weight-94.11g/mol				
		Physical form-Crystalline solid				
		Delivery period should be mentioned				
		Analysis reoprt should be provided				
11	Selenium powder	Analar grade	250g	1		
		Molecular weight - 78.971 g/mol				
		Color-grey				
		Density 10.5 g/cm^3				
		Delivery period should be mentioned				
		Analysis reoprt should be provided				

12	Potassium ferrocyanide	Analar grade	50g	1		
		Molecular weight- 422.39g/mol				
		Molecular formular- $K_4Fe(CN)6.3H_2O$				
		Delivery period should be mentioned				
		Analysis reoprt should be provided				
13	potassium sodium tartrate	Analar grade	100g	1		
		Assay -99.0-102.0 %				
		pH- 7-8.5				
		molecular weight - 282.22 g/mol				
		Delivery period should be mentioned				
		Analysis reoprt should be provided				
14	Ammonium Hydroxide	Analar grade	1L	2		
		Density-0.880				
		Assay- 28%				
		Delivery period should be mentioned				
		Analysis reoprt should be provided				
15	Nitrobenzene	Liquid form	500ml	1		
		Pale yello color				
		pH 8-8.5				
		Molecular weight- 123.11				
		Delivery period should be mentioned				
		Analysis reoprt should be provided				
16	Ammonium ferric sulfate	Formula: $NH_4Fe(SO_4)_2 \cdot 12H_2O$	100g	1		
		MW: 482,2 g/mol				
		Density: 1,71 g/cm³ (20 °C)				
		Storage Temperature: Ambient				
		Analar grade				
		Delivery period should be mentioned				
		Analysis reoprt should be provided				
17	Potassium thiocyanate	Formula: KSCN	500g	1		
		Molecular weight: 97.18g/mol				
		PH 5.5-7.5				

		Appearance: White colour crystal				
		Analar grade				
		Storage : Room temperature				
		Delivery period should be mentioned				
		Analysis reoprt should be provided				
18	Potassium permanganate	Formula: $KMnO_4$	250g	1		
		Molecular weight: 158.034g/mol				
		Appearance: Purplish colour crystal				
		Analar grade				
		Storage : Room temperature				
		Analysis reoprt should be provided				
		Delivery period should be mentioned				
19	McConkey Agar	Oxoid or equivalent	500g	2		
		Brand should be mentioned				
		Formular g/l :				
		peptone 20.0 g/l				
		lactose 10.0 g/l				
		Bile Salts 5.0 g/l				
		Sodium Choloride 5.0 g/l				
		Neutral red 0.075 g/l				
		Agar 12.0 g/l				
		Catalogue should be provided				
		Delivery period should be mentioned				
20	Nutrient Agar	Oxoid or equivalent	500g	2		
		Brand should be mentioned				
		Formula g/l :				
		Lab lemco powder 1.0 g/l				
		yeast extract 2.0 g/l				
		Peptone 5.0g/l				
		Sodium chloride 5.0 g/l				
		Disodium phosphate 1.2 g/l				
		Potassium di hydrogen phosphate				
		Catalogue should be provided				
		Delivery period should be mentioned				
21	Sabouraud Dextrose Agar	Oxoid or equivalent	500g	1		
	(SDA)	Brand should be mentioned				

		Formular g/l :				
		Mycological peptone - 20 g/l				
		Glucose 40.0 g/l				
		Agar 12.0 g/l				
		Catalogue should be provided				
		Delivery period should be mentioned				
22	Eosin Methylene Blue Agar	Oxoid or equivalent	500g	1		
	(EMB)	Brand should be mentioned				
		Formuls g/l:				
		Peptone10.0				
		Lactose 10.0				
		Dipotassium hydrogen phosphate 2.0				
		Eosin Y 0.4				
		Methylene blue 0.065				
		Agar 15.0				
		pH 6.8 ± 0.2				
		Catalogue should be provided				
		Delivery period should be mentioned				
23	XLD	Oxoid or equivalent	500g	3		
		Powder form				
		Straw color				
		pH 7.4 +/- 0.2 @25^{0}C				
		Catalogue should be provided				
24	Brilliant green agar	Oxoid or equivalent	500g	2		
		Powder form				
		pH 6.9 ± 0.2 @ 25°C				
		Shelf life should be minimum 2 years from delivery date				
25	Baired parker medium with suppliment	Oxoid or equivalent	500g	1		
		pH- 6.8 +- 0.2				
		Powder form				
		Storage-25^{0}C				
		shelf life minimum 3 years from delivery date				
26	Urea 40 % (Culture Media supplements)	Oxoid or equivalent	5ml	10		
		Brand should be mentioned				
		Formula g/l: Urea 40%				
		Catalogue should be provided				

		Delivery period should be mentioned				
27	Mannitol Salt Agar	Oxoid or equivalent	500g	1		
		Shelf life should be minimum 2 years from delivery date				
		pH 7.4+- 0.2				
28	Standard Plate count agar	Oxoid or equivalent	500g	1		
		Powder form				
		Straw color appearance				
		pH 7.0 +- 0.2				
		Shelf life should be minimum 2 years from delivery date				
29	Screw caps for sample bottle (51mm)	Bakelite or Aluminium	10	5		
		51 mm diameter				
		Sample should be provided				
30	Screw caps for sample bottle (48mm)	Bakelite or Aluminium	10	5		
		48mm diameter				
		Sample should be provided				
31	Petri dishes	Pyrex	25	4		
		Should be fitted with the lid				
		90mm diameter				
32	Test tube with screw cap	diameter- 16mm	50	4		
		height- 100mm				
		Borosilicate Glass				
		Transparent				
33	Burettes	High quality, borosilicate burette with PTFE stopcock	1	5		
		50mL capacity with 0.10mL graduations				
		Class A tolerence (+/- 0.05mL)				

02.Laboratory Equipment

S.N	Item	Specification	Pack size	QTY	Bidder's compliance Yes/ No	If "No" bidder's specifiations
1	Portable milk pH meter	0.02pH/0.1pH accuracy	1	1		
		ph rang should be +/- 825mV				
		With water proof thermometer				
		mV resolution should be 4mV				

		Catalogue: should be provided				
		Delivery Period should be mentioned				
		Should be compatible with FC 202 pH probe				
		For pH testing in milk				
		Authorization letter should be provided				
2	ELISA Reader	Should be installed and demonstrated by the supplier	1	1		
		Sould have EU standards and made should be mentioned				
		Warranty : Minimum 3 years				
		Detection mode : Absorbance				
		Read methods : Endpoint, well area, spectral scanning				
		Light source : Xenon flash/ Quartz-haloge				
		Detector : Photodiode				
		Wave length selection : Monochromator				
		Wavelength range : 220 to 800nm, in 1nm increment				
		With wavelength repeatability & pathlength correction				
		Photometric range: 0.000 – 4.000 Abs				
		Resolution of 0.0001 Abs				
		Bandwidth of 5-10 nm				
		Accuracy : + 1.0% or 0.015, 0 – 3.0 OD				
		Reading speed : 96 wells : 8 -15 sec				
		Uniform temperature : Ambient + 4˚C - 45C˚				
		Filters of 340, 405, 450, 492, 630 nm should be included (ability to install 3 additional filters)				
		Storage : >100 programs, > 50,000 test records				
		Power : 230V and 50/60 Hz				
		Dimensions : 12”- 18”W X 12”- 18”D X 7”- 10”H				
		Compatible plates : 96 well plates				
		Cuvette port : Available				
		Ports : USB ports for PC, printer and flash drive				
		Authorization letter & catalogue should be provided				
3	Lactoscan milk Analyzer	Europeon standard	1	1		
		Printer availability				
		Warranty: 2 years minimum				
		RS232 interface				
		Law milk requirement				
		Running time 45 seconds				
		Authorization letter should be provided				
4	Benchtop somatic cell counter	High-end automated fluorescent microscope with fast autofocus and cell counting software	1	1		

		Fast, accurate, reliable somatic cells analysis of cow, sheep, goat, buffalo and human milk				
		Possibility of reference analysis				
		Detects subclinical and clinical mastitis				
		Threshold level should be mentioned				
		Easily readable results within 20 to 60 seconds				
		Takes a maximum of 64 images by computer controlled X:Y movements and then processes these by the image analysis software				
		Stores unlimited number of record in the database				
		Results are color coded				
		Automatic software update and remote service				
		Should be available with 25 pcs.LACTOChip x 4 and 100 pcs of SOFIA GREEN lyophilized dye and easy availability of purchasing of those consumables				
		Available with 1pcs.Lactoscan scc calibration sample, 4pcs. Milk sample contained, 1 Pc Rack and 100µl and 1000µl adjustable pipette and vortex mixture				
		3 year Warranty				
		Authorization letter & catalogue should be provided				
		For detection of somatic cell count in milk				
		Should be installed and demonstrated by the supplier				

03.Laboratory consumables

S.N	Item	Specification	Pack size	QTY	Bidder's compliance Yes/ No	If "No" bidder's specifiations
1	Bulbs For Automatic Burettes	One bulb with 2 valves	1	3		
		Material: flexible PVC (free of cadmium)				
		Inside Ø of the tubing : 4mm approx				
		Outside Ø of the tubing : 8-9 mm				
		Tube length: 400mm approx				
		Catalogue should be provided				
		Quality: EU standards				
		Delivery period should be mentioned				
2	Tip Boxes	with 1.5ml tips (96/box)	5	1		
		Autoclavable				
		96 wells				
		Samples should be provided				
		Delivery period should be mentioned				

3	Polypropelene Beakers	100ml	25	1		
		Graduated				
		Material Polypropelene				
		Delivery period should be mentioned				
4	Polypropelene Measuring cylinders	100ml	1	5		
		Graduated				
		Material Polypropelene				
		Delivery period should be mentioned				
5	Pipette bulb	3 Valve Design	1	2		
		Compatible to 25 mL glass pipette				
		Made - Natural Rubber				
		European standard				
		Delivery period should be mentioned				
6	Parafilm laboratory sealing film	Semi-Transparent, Flexible, Thermoplastic Film	1	1		
		Chemical resistant				
		2 inch width, 250 feet length				
		Stretches > 200%				
7	Autoclave tape	Adhesive crepe paper with white stripes	5	1		
		Roll, 50 m x 1.9 cm				
		Steam-sensitive ink indicator				
		Change of colour when in contact with steam:				
		at 121ºC for 3 minutes minimum				
		at 134ºC for 30 seconds minimum				
		Important contrast between colours: white stripes changing to black				
		Word "autoclave" written inside the roll / on package				
8	Pasture pipette	Polypropylene	50	10		
		Volume-3 ml				
		Graduated by 0.5ml				
9	3M mask	Protection rate FFP1	50	1		
		Moulded				
		With adjustable nose clip				
		White color				