

**COLLEGE OF DAIRY & FOOD TECHNOLOGY (CDFT)**  
(Rajasthan University of Veterinary & Animal Sciences, Bikaner)  
NH-21, Agra Road, Bassi, Jaipur (Raj.)

Prof. (Dr.) Dharm Singh Meena  
DEAN

Email: cdftbassi@gmail.com  
Mob.: +91-9414250161

F. No. ( ) RAJUVAS/CDFT/2021-22/ 180-81

Dated: 31.01.2022

**CORRIGENDUM**

**Ref: E-Tender-01 for purchase of Laboratory Equipments**

**Pre-Bid Meeting Dated 29.01.2022**

As per tender terms and conditions pre bid meeting was held on 29.01.2022, after discussions with the bidder representatives, purchase committee has been recommended that these amendments are to be uploaded in e-Tender-01 as corrigendum.

**1. Amendments in technical specifications Tender Page No. 38-75**

**Table No. 1**

S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
1.	1.	UV-VIS Spectro-photometer	<p><b>Photometric System</b> Double beam, Czerny-Turner mounting, single monochromator, Lo-Ray grade blazed holographic grating</p> <ul style="list-style-type: none"> <li>Wavelength range 190 – 1100 nm</li> <li>Spectral Bandwidth: 0.1, 0.2, 0.5, 1, 2, 5 nm</li> <li>Wavelength accuracy: <math>\pm 0.1</math> nm</li> <li>Wavelength slew speed: 14000nm/min</li> <li>Wavelength Scanning speed: 0.5-4000 nm/min</li> <li>Stray light: Max. 0.5% at 220 nm (NaI) &amp; 340, 370 nm (NaNO<sub>2</sub>), 1% (198 nm, KCl)</li> <li>Photometric accuracy: <math>\pm 0.004</math> Abs (0.5~1.0A)</li> <li>Photometric range: -5 to 5 Abs.</li> <li>Light Source: 50 W Halogen</li> </ul>	<p><b>Photometric System</b> Double beam, single monochromator, Czerny-Turner mounting Should have Low stray light diffraction Gratings</p> <ul style="list-style-type: none"> <li>Wavelength range 190 – 1100 nm</li> <li>Spectral Bandwidth: 0.1, 0.2, 0.5, 1, 2, 5 nm</li> <li>Wavelength accuracy: <math>\pm 0.1</math> nm</li> <li>Wavelength slew speed: 14000nm/min</li> <li>Wavelength Scanning speed: 0.5-4000 nm/min</li> <li>Stray light: Max. 0.5% at 220 nm (NaI) &amp; 340, 370 nm (NaNO<sub>2</sub>), 1% (198 nm, KCl)</li> <li>Photometric accuracy: <math>\pm 0.004</math> Abs (0.5~1.0A)</li> <li>Photometric range: -5 to 5 Abs.</li> <li>Light Source: 50 W Halogen</li> </ul>

*(Handwritten signatures and initials)*

S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<p>and Deuterium lamp, Auto position adjustment built-in.</p> <ul style="list-style-type: none"> <li>• Detector: Photodiode Array Detector</li> <li>• Software: Windows 10 genuine</li> <li>• PC with in-built Wi-Fi device (Dell/Hp; Monitor: 24" with 1440 resolution, wireless Keyboard and mouse) with i7 processor 10<sup>th</sup> generation, 8GB RAM and 250 GB SSD Hardisk and Multifunction Never stop Laser Printer (Hp) with Wi-Fi and USB connectivity, Pen Drive – 32 GB; Cleaning kit and Equipment Cover</li> <li>• Should have DIN EN ISO and IEC 17025 certification</li> </ul> <p><b>Accessories required (Extremely Mandatory)</b></p> <ul style="list-style-type: none"> <li>• <b>Cuvette (2mL) – 06</b> (Glass transparent with lid with box), 06 (Quartz with lid with box), 06 (Amber colour with lid) and 1 Box (10 Pcs. Plastic cuvette with lid)</li> <li>• <b>One revolving height adjustable stool chair (SS)</b></li> <li>• <b>3 KVA online UPS with Min 1hr battery backup</b></li> <li>• The instrument should be supplied complete in all respects like Cleaning kit, Equipment Cover, operating instructions, quick guide, and declaration of conformity and test certificate.</li> </ul> <p><b>Warranty : 5 years exclusive</b></p>	<p>and Deuterium lamp, Auto position adjustment built-in.</p> <ul style="list-style-type: none"> <li>• Detector: Photodiode Array Detector</li> </ul> <p><b>Accessories required (Extremely Mandatory)</b></p> <ul style="list-style-type: none"> <li>• PC with in-built Wi-Fi device (Dell/Hp/Lenovo; Monitor: 24" with 1440 resolution, wireless Keyboard and mouse) with i7 processor 10<sup>th</sup> generation, 8GB RAM <b>and 500 GB SSD</b> and Multifunction Never stop Laser Printer (Hp) with Wi-Fi and USB connectivity, Software: <b>Windows 11 Home genuine, Quick heal Total Security Antivirus for 3 Years</b>, Pen Drive – 32 GB; Cleaning kit and Equipment Cover</li> <li>• Should have specific Software come with UV-VIS Spectrophotometer</li> <li>• <b>Should have DIN EN ISO and IEC 17025 certification</b></li> <li>• <b>Cuvette (2mL) – 06</b> (Glass transparent with lid with box), 06 (Quartz with lid with box), 06 (Amber colour with lid) and 1 Box (10 Pcs. Plastic cuvette with lid)</li> <li>• <b>One revolving height adjustable stool chair (SS)</b></li> <li>• <b>3 KVA online UPS (2 output port) with Min 1hr battery backup</b></li> <li>• The instrument should be supplied complete in all respects like Cleaning kit, Equipment Cover, operating instructions, quick guide, and declaration of conformity and test certificate.</li> <li>• <b>Warranty : 5 years for all parts i.e. Comprehensive Maintenance Contract (CMC)</b></li> </ul>
2.	2	<b>Tabletop Refrigerated Centrifuge</b>	<ul style="list-style-type: none"> <li>• Table top compact refrigerated centrifuge with CFC free refrigerant.</li> <li>• Should have max. capacity of around 24 x 1.5/2.0 ml, 8x15 ml and for 8x 50 ml</li> </ul>	<ul style="list-style-type: none"> <li>• Table top compact refrigerated centrifuge with CFC free refrigerant.</li> <li>• Should have max. capacity of around 24 x 1.5/2.0 ml, 8x15 ml, 8x 50 ml and <b>6 x 250 mL</b> or</li> </ul>



S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<ul style="list-style-type: none"> <li>• Should have max. Speed of 14,000 -17,000 or more with RCF of 25,000-30,000 g.</li> <li>• Should provide Temperature control from -10°C or lower to +40°C</li> <li>• Centrifuging chamber should be made of stainless steel.</li> <li>• Should have auto powered lid locking.</li> <li>• Should have digital display and operation.</li> <li>• The rotors should be changed easily.</li> <li>• Should be able to store at least 10 programs.</li> <li>• Should be equipped with a pre-cooling function (Fast Cool) and stand-by cooling.</li> <li>• Should have auto powered lid locking and holding function.</li> <li>• Should have Emergency lid lock release function.</li> <li>• Should provide Lid dropping protection.</li> <li>• Should have Automatic rotor recognition function.</li> <li>• Should have Imbalance switch-off function.</li> <li>• Should provide Motor and chamber overheating protection.</li> <li>• Should have a 24 place angle Rotor for 1.5/2.0 ml tubes with speed: 18,000 rpm.</li> <li>• Extraordinarily silent (&lt;60 dB)</li> <li>• <b>Rotors:</b> Light weight, corrosion and fatigue resistant</li> <li>• <b>Fixed Angle rotor</b> 6 x 50 mL with aerosol tight lid for 50 mL falcon tubes with maximum of 12,100 rpm and 20,130 x g. Optional Adapter for 15 mL tubes (rotor must be 45° angle).</li> <li>• <b>Additional Fixed angle rotor required</b> for eppendorf tubes 24 x 1.5/2.0 mL. Both rotor and rotor lid is made of anodized aluminium/ Fiber, Light weight, corrosion and fatigue resistant</li> </ul>	<p>more</p> <ul style="list-style-type: none"> <li>• Should have max. Speed of 14,000 -16,000 or more with RCF of 25,000-30,000 g (Rotor specific).</li> <li>• Should provide Temperature control from -10°C or lower to Ambient temp ± 5 °C</li> <li>• Centrifuging chamber should be made of stainless steel.</li> <li>• Should have auto powered lid locking.</li> <li>• Should have digital display and operation.</li> <li>• The rotors should be changed easily.</li> <li>• Should be able to store at least 10 programs.</li> <li>• Should be equipped with a pre-cooling function (Fast Cool) and stand-by cooling.</li> <li>• Should have Emergency lid lock release function.</li> <li>• Should provide Lid dropping protection.</li> <li>• Should have Automatic rotor recognition function.</li> <li>• Should have Imbalance switch-off function.</li> <li>• Should provide Motor and chamber overheating protection.</li> <li>• Should have a 24 place angle Rotor for 1.5/2.0 ml tubes with speed: 15,000 RPM or Higher.</li> <li>• Extraordinarily silent (&lt;60 dB)</li> <li>• <b>Rotors:</b> Light weight, corrosion and fatigue resistant</li> <li>• <b>Fixed Angle rotor</b> 6 x 250 mL with aerosol tight lid. For 250 mL tubes with maximum speed of 10,500 RPM or Higher. Both rotor and rotor lid is made of anodized aluminium/ Fiber, Light weight, corrosion and fatigue resistant as well as autoclavable at 121 °C for 20 mins. Adapter for 15 mL and 50 mL tubes must be provided along with instrument (rotor</li> </ul>

S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<p>as well as autoclavable at 121 °C for 20 mins.</p> <ul style="list-style-type: none"> <li>Should be certified with MED CERT (EN ISO 13485:2003) (ISO 9001) certified, which ensures the extreme care and responsibility for the manufacturing of centrifuges.</li> <li>Should have international standards such as IEC 61010 Conformity.</li> </ul> <p><b>5 KVA Voltage stabilizer:</b></p> <ul style="list-style-type: none"> <li>Input Voltage Range: 170 V– 270 V AC</li> <li>Output Voltage: 230 V ± 1 %</li> <li>Air Cooled system and digital/analogue display system</li> <li>Efficiency: ≥ 96 % or IS 9815 Standards</li> <li>Under /Over Voltage Cut off Protection</li> </ul> <p>The instrument should be supplied complete in all respects like Cleaning kit, original equipment cover, operating instructions, quick guide, and declaration of conformity and test certificate.</p> <ul style="list-style-type: none"> <li><b>One revolving height adjustable stool chair (SS)</b></li> </ul> <p><b>Warranty : 5 years exclusive</b></p>	<p>must be 45° angle).</p> <ul style="list-style-type: none"> <li><b>Fixed angle rotor required for eppendorf tubes 24 x (1.5/2.0) mL with maximum speed of 15,000 RPM or Higher. Both rotor and rotor lid is made of anodized aluminium/ Fiber, Light weight, corrosion and fatigue resistant as well as autoclavable at 121 °C for 20 mins.</b></li> <li><b>ELISA Plate (96 Well) rotor to be supplied along with the system</b></li> <li>Should be certified with MED CERT (EN ISO 13485:2003) (ISO 9001) certified, which ensures the extreme care and responsibility for the manufacturing of centrifuges.</li> <li>Should have international standards such as IEC 61010 Conformity.</li> </ul> <p><b>5 KVA Voltage stabilizer:</b></p> <ul style="list-style-type: none"> <li>Input Voltage Range: 170 V– 270 V AC</li> <li>Output Voltage: 230 V ± 1 %</li> <li>Air Cooled system and digital/analogue display system</li> <li>Efficiency: ≥ 96 % or IS 9815 Standards</li> <li>Under /Over Voltage Cut off Protection</li> </ul> <p>The instrument should be supplied complete in all respects like Cleaning kit, original equipment cover, operating instructions, quick guide, and declaration of conformity and test certificate.</p> <ul style="list-style-type: none"> <li><b>One revolving height adjustable stool chair (SS)</b></li> <li><b>Warranty : 5 years for all parts i.e. Comprehensive Maintenance Contract (CMC)</b></li> </ul>
3.	3.	<b>Binocular Compound Microscope</b>	<ul style="list-style-type: none"> <li>Stand: Single mold sturdy with anti rust material. Extended base for better stability</li> <li>Viewing Bodies: Siedentopf Binocular / Trinocular tube,</li> </ul>	<ul style="list-style-type: none"> <li>Stand: Single mold sturdy with anti rust material. Extended base for better stability</li> <li>Viewing Bodies: Siedentopf Binocular / Trinocular tube,</li> </ul>



S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<p>30°C inclined, 360° rotatable, interpupillary distance 48-75mm.</p> <ul style="list-style-type: none"> <li>• Eyepieces: Wide field focusable paired eyepiece WF 10x/22mm paired with focusable eye guards, lockable, antifungal coating.</li> <li>• Nosepiece: Quintuple Reverse angle nosepiece (Ball bearing type) with click stops and rubber grip.</li> <li>• Objectives: RP series DIN Infinity Corrected Plan Achromatic Objectives – 4x, 10x, 40x (spring loaded), 100x (spring loaded, oil), anti fungus coating.</li> <li>• Mechanical Stage: Reckless X-axis Ceramic coated double plate mechanical stage, plate size 200 x 160mm, X/Y travel range - 76 x 40 mm.</li> <li>• Condenser: Sub-stage Abbe condenser NA 1.25 with aspheric lens and Iris diaphragm. Rack and pinion movements on stainless steel guides. Day light blue filter.</li> <li>• Focusing: Co-axial coarse and fine focusing on gear system for smooth operation.</li> <li>• Illumination: LED illumination with variable illumination control</li> <li>• <b>Should have international quality standard with USFDA enlistment, CE, ISO certification</b></li> <li>• Power supply: Input 220v – 240v AC</li> <li>• The instrument should be supplied complete in all respects like appropriate universal power supply (CE power cord), cleaning kit, immersion oil, wooden storage box, original equipment cover, operating instructions, quick guide, and declaration of conformity and</li> </ul>	<p>30°C inclined, 360° rotatable, interpupillary distance 48-75mm.</p> <ul style="list-style-type: none"> <li>• Eyepieces: Wide field focusable paired eyepiece WF 10x/22mm paired with focusable eye guards, lockable, antifungal coating.</li> <li>• Nosepiece: Quintuple Reverse angle nosepiece (Ball bearing type) with click stops and rubber grip.</li> <li>• Objectives: RP series DIN Infinity Corrected Plan Achromatic Objectives – 4x, 10x, 40x (spring loaded), 100x (spring loaded, oil), anti fungus coating.</li> <li>• Mechanical Stage: Reckless X-axis Ceramic coated double plate mechanical stage, plate size 200 x 160mm, X/Y travel range - 76 x 40 mm.</li> <li>• Condenser: Sub-stage Abbe condenser NA 1.25 or higher with aspheric lens and Iris diaphragm. Rack and pinion movements on stainless steel guides. Day light blue filter.</li> <li>• Focusing: Co-axial coarse and fine focusing on gear system for smooth operation.</li> <li>• Illumination: LED illumination with variable illumination control</li> <li>• <b>Should have international quality standard with USFDA enlistment, European CE, ISO certification</b></li> <li>• Power supply: Input 220v – 240v AC</li> <li>• The instrument should be supplied complete in all respects like appropriate universal power supply (CE power cord), cleaning kit, immersion oil, wooden storage box, original equipment cover, operating instructions, quick guide, and declaration of conformity and</li> </ul>



S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			test certificate. <b>Warranty : 5 years exclusive</b>	test certificate. <b>• Warranty : 5 years exclusive</b>
4.	4.	<b>Digital pH meter</b>	<p>1) Menu-specific function keys and the measurement of pH, mV and temperature should be possible.</p> <p>2) Range of pH measurement should be -2.00 to + 14.00.</p> <p>3) Accuracy for each pH measurement should be <math>\pm 0.005</math>.</p> <p>4) For calibration, pre programmed buffer sets should be supplied, automatic buffer recognition and display should be possible, maximum 3 point calibration, manual calibration with selected buffers should be possible.</p> <p>a) Should have dead stop function.</p> <p>b) Range for mV should be -999.9 to +999.9.</p> <p>c) Accuracy for each mV measurement should be <math>\pm 0.3</math> mV.</p> <p>d) Temperature measurement range should be from -5 to 120°C.</p> <p>e) Accuracy for temperature <math>\pm 0.1^\circ\text{C}</math>.</p> <p>f) Selection for °C and automatic switch over to manual temperature input when no temperature input is connected.</p> <p>g) Two channel for pH, mV and temperature measurements.</p> <p>h) Data logging Memory: At least 1000 with time and date stamp, Log Function: Manual, power supply, pH temperature combination electrode, 3 point calibration solutions.</p> <p><b>5) Should have CE and ISO calibration</b> The instrument should be supplied complete in all respects like electrode holder with stand, original protective cover, operating instructions,</p>	<p>1) Menu-specific function keys and the measurement of pH, mV and temperature should be possible.</p> <p>2) Range of pH measurement should be -2.00 to + 14.00.</p> <p>3) Accuracy for each pH measurement should be <math>\pm 0.005</math>.</p> <p>4) For calibration, pre programmed buffer sets should be supplied, automatic buffer recognition and display should be possible, maximum 3 point calibration, manual calibration with selected buffers should be possible.</p> <p>a) Should have dead stop function.</p> <p>b) Range for mV should be -999.9 to +999.9.</p> <p>c) Accuracy for each mV measurement should be <math>\pm 0.3</math> mV.</p> <p>d) Temperature measurement range should be from -5 to 120°C.</p> <p>e) Accuracy for temperature <math>\pm 0.1^\circ\text{C}</math>.</p> <p>f) Selection for °C and automatic switch over to manual temperature input when no temperature input is connected.</p> <p>g) Two channel for pH, mV and temperature measurements.</p> <p>h) Data logging Memory: At least 1000 with time and date stamp, Log Function: Manual, power supply, pH temperature combination electrode, 3 point calibration solutions.</p> <p><b>5) Should have European CE and ISO calibration</b> The instrument should be supplied complete in all respects like electrode holder with stand, original protective cover, operating instructions,</p>



S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS												
			<p>quick guide, and declaration of conformity and test certificate. Instrument should be supplied along with following other than supplied with instrument:</p> <ul style="list-style-type: none"> <li>- 1. Spare pH Electrode (Combined) having BNC connector (1 Nos.), AC Adapter: Included-Universal, 100-240 VAC Battery Power option- 4 AAs</li> </ul> <p><b>Warranty : 5 years exclusive</b></p>	<p>quick guide, and declaration of conformity and test certificate. Instrument should be supplied along with following other than supplied with instrument:</p> <ul style="list-style-type: none"> <li>- 1. Spare pH Electrode (Combined) having BNC connector (1 Nos.), AC Adapter: Included-Universal, 100-240 VAC Battery Power option- 4 AAs</li> </ul> <p><b>• Warranty : 5 years for all parts i.e. Comprehensive Maintenance Contract (CMC)</b></p>												
5.	6.	<b>Autoclave with Volume: 100 Ltrs</b>	<ul style="list-style-type: none"> <li>• Fully Automatic with vertical double wall and Radial Locking</li> <li>• Complete Stainless Steel 16 SWG sheet -304 grades and Outer shell of Stainless Steel sheet - 304 grade, mirror polish and Castor wheels with lock system for easy movability and stand.</li> <li>• Digital Temperature and Timer PID Controller</li> </ul> <table border="1"> <tr> <td><b>Temperature Range</b></td> <td><b>Ambient to 125°C</b></td> </tr> <tr> <td><b>Temperature Resolution</b></td> <td><b>0.1 °C</b></td> </tr> <tr> <td><b>Pressure range</b></td> <td><b>15 Psi to 20 Psi ± 1 psi (Factory Set at 15 Psi)</b></td> </tr> </table> <ul style="list-style-type: none"> <li>• Low Water Cut off Device</li> <li>• Auto purging system and Automatic Steam Release</li> <li>• ISI marked immersion type heating element</li> <li>• Stainless Steel basket with stand</li> <li>• Autoclave is fitted with steam release valve, spring loaded safety valve; which can be set at any selected point from 10 psi to 20 psi ± 3 psi, dead weight type safety valve</li> <li>• Should have temperature (specified safe level) activated door Lock</li> <li>• Should have cycle information</li> </ul>	<b>Temperature Range</b>	<b>Ambient to 125°C</b>	<b>Temperature Resolution</b>	<b>0.1 °C</b>	<b>Pressure range</b>	<b>15 Psi to 20 Psi ± 1 psi (Factory Set at 15 Psi)</b>	<ul style="list-style-type: none"> <li>• Fully Automatic with vertical double wall and Radial Locking</li> <li>• Complete Stainless Steel 16 SWG sheet -304 grades and Outer shell of Stainless Steel sheet - 304 grade, mirror polish and Castor wheels with lock system for easy movability and stand.</li> <li>• Digital Temperature and Timer PID Controller</li> </ul> <table border="1"> <tr> <td><b>Temperature Range</b></td> <td><b>Ambient to 125°C or Higher</b></td> </tr> <tr> <td><b>Temperature Resolution</b></td> <td><b>0.1 °C</b></td> </tr> <tr> <td><b>Pressure range</b></td> <td><b>15 Psi to 20 Psi ± 1 psi (Factory Set at 15 Psi)</b></td> </tr> </table> <ul style="list-style-type: none"> <li>• Low Water Cut off Device</li> <li>• Auto purging system and Automatic Steam Release</li> <li>• ISI marked immersion type heating element</li> <li>• Stainless Steel basket with stand</li> <li>• Autoclave is fitted with steam release valve, spring loaded safety valve; which can be set at any selected point from 10 psi to 20 psi ± 3 psi, dead weight type safety valve</li> <li>• Should have temperature (specified safe level) activated door Lock</li> <li>• Should have cycle information</li> </ul>	<b>Temperature Range</b>	<b>Ambient to 125°C or Higher</b>	<b>Temperature Resolution</b>	<b>0.1 °C</b>	<b>Pressure range</b>	<b>15 Psi to 20 Psi ± 1 psi (Factory Set at 15 Psi)</b>
<b>Temperature Range</b>	<b>Ambient to 125°C</b>															
<b>Temperature Resolution</b>	<b>0.1 °C</b>															
<b>Pressure range</b>	<b>15 Psi to 20 Psi ± 1 psi (Factory Set at 15 Psi)</b>															
<b>Temperature Range</b>	<b>Ambient to 125°C or Higher</b>															
<b>Temperature Resolution</b>	<b>0.1 °C</b>															
<b>Pressure range</b>	<b>15 Psi to 20 Psi ± 1 psi (Factory Set at 15 Psi)</b>															

S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<p>recovery in the case of power failure or cycle interruption</p> <ul style="list-style-type: none"> <li>• Should indicates the door is unlocked/ Locked</li> <li>• Perforated basket made of Stainless Steel sheet- 304 grade or more</li> <li>• Inner chamber size - 18" x 24" (Dia x height) and capacity – 95 liter.</li> <li>• Operates on 230 Volts AC Single phase 50 Hz.</li> <li>• <b>Should have IEC 61010-2-040, EN 61326, ISO 17665-1:2006, ISO 9001:2000, ISO 13485:2003 certification</b></li> <li>• <b>Should provide Digital thermometer (0-100 degree C) and wall mount Ordinary mercury thermometer (0-100 degree C)</b></li> <li>• The instrument should be supplied complete in all respects like operating instructions, quick guide, and declaration of conformity and test certificate.</li> </ul> <p><b>Warranty : 5 years exclusive</b></p>	<p>recovery in the case of power failure or cycle interruption</p> <ul style="list-style-type: none"> <li>• Should indicates the door is unlocked/ Locked</li> <li>• Perforated basket made of Stainless Steel sheet- 304 grade or more</li> <li>• Inner chamber size - 18" x 24" (Dia x height) and capacity – 95 liter.</li> <li>• Operates on 230 Volts AC Single phase 50 Hz.</li> <li>• <b>Should have IEC 61010-2-040, EN 61326, ISO 17665-1:2006, ISO 9001:2000, ISO 13485:2003, EN CEcertification</b></li> <li>• <b>Should provide Digital thermometer (0-100 degree C) and wall mount Ordinary mercury thermometer (0-100 degree C)</b></li> <li>• The instrument should be supplied complete in all respects like operating instructions, quick guide, and declaration of conformity and test certificate.</li> <li>• <b>Warranty: 5 years for all parts i.e. Comprehensive Maintenance Contract (CMC)</b></li> </ul>
6.	10.	<b>Horizontal Electrophoresis System (Mini and Medium) with Basic Power Supply</b>	<p>A. Horizontal electrophoresis system to cast and run</p> <p>Features:</p> <p>a) <b>Mini Horizontal Electrophoresis</b></p> <p>a) Should have a single moulded tank with safety lid and UV Transparent tray</p> <p>b) Should have UV transparent tray of minimum 7 x 10 cm with at least two slots for combs</p> <p>c) Should have a sample throughput of up to 30 samples, at least two combs should be provided preferably one each of 8 and 15 wells</p> <p>d) Should have replaceable</p>	<ul style="list-style-type: none"> <li>• <b>Warranty: 5 years for all parts i.e. Comprehensive Maintenance Contract (CMC)</b></li> <li>• <i>No change in Technical Specifications</i></li> </ul>



S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<p>platinum electrodes</p> <p>e) Should be compatible for fast resolution of DNA (Bromophenol blue migration rate &gt;4.5cm/hr at 75V)</p> <p>f) The electrophoresis system must be from the same manufacturer as the power pack for complete compatibility</p> <p>g) No. of comb- 5 each size</p> <p><b>b) <u>Midi Horizontal Electrophoresis</u></b></p> <p>a) Should have a single moulded tank with safety lid and UV Transparent tray</p> <p>b) Should have UV transparent tray of minimum 15 x 10 cm &amp; 15 X 15 cm with at least two slots for combs</p> <p>c) Should have a sample throughput of up to 60 samples, at least two combs should be provided preferably one each of 15 and 20 wells</p> <p>d) Should have replaceable platinum electrodes</p> <p>e) Should conform to CE standards. A copy of CE Certificate should be attached</p> <p>f) Should have adjustable external gel caster</p> <p>g) Should be compatible for fast resolution of DNA (Bromophenol blue migration rate &gt;4.5cm/hr at 75V)</p> <p>h) The electrophoresis system must be from the same manufacturer as the power pack for complete compatibility</p> <p>1) Number of gels: 1-2</p> <p>2) Cell (tank and lid with power cables, electrode assembly): 1</p> <p>3) Gel casting apparatus</p>	

S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<p>should be separate from gel running apparatus</p> <p>4) Casting stands: Polycarbonate</p> <p>5) Pin, retaining ring, and spring: Stainless steel</p> <p>6) Casting frames: Polysulfone, 2 Nos.</p> <p>7) Gaskets: Thermoplastic rubber, 2 Nos.</p> <p>8) Electrode Assembly: Glass-filled polybutylene terephthalate</p> <p>9) Electrodes: Platinum wire, 0.010 inches diameter</p> <p>10) Gasket, electrode inner core: Silicone rubber</p> <p><b>High-quality Basic Power Supply: Features:</b></p> <ul style="list-style-type: none"> <li>• Should offer simple programming, timer control, constant voltage or current output, and the ability to pause and resume a run.</li> <li>• Intended for basic applications such as submerged horizontal and mini vertical gel electrophoresis and should also provide sufficient output to support the Blot Cell.</li> <li>• To prevent damage to electrophoresis cells, the Power Supply should have automatic crossover. When the set limit of the non-constant parameter (either voltage or current, depending on settings) is reached, and the power capability of the unit is not exceeded, the power supply will make the non-constant parameter the new constant parameter.</li> <li>• Pause mode for editing run parameters, or stopping and resuming the run</li> <li>• Power failure detection in timed mode; when power returns run will complete</li> <li>• Automatic detection of rapid changes in resistance, and no load conditions</li> </ul>	

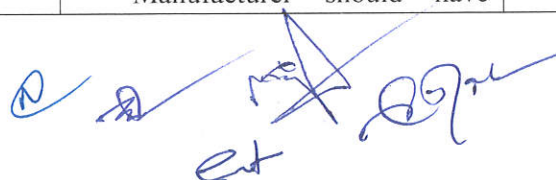


S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<ul style="list-style-type: none"> <li>• Compact and stackable</li> <li>• Flip-down legs to change viewing angle</li> <li>• Output specifications: 10–300 V, fully adjustable in 1 V steps 4–400 mA, fully adjustable in 1 mA steps 75 W (maximum)</li> <li>• Type of output: Constant voltage or constant current with automatic crossover</li> <li>• Output terminals: 4 pair recessed banana jacks in parallel</li> <li>• Timer control: 1 min–99 hr 59 min, fully adjustable</li> <li>• Pause/resume function: Yes</li> <li>• Operating conditions: 0–40°C; 0–95% humidity in absence of condensation</li> <li>• Safety features: No-load detection; rapid resistance change detection, ground leak detection, overload/short circuit detection, overvoltage protection, over-temperature protection</li> <li>• Input protection: Fuse on hot and neutral</li> <li>• <b>Should have ISO 9001, EN61010 and ICE</b></li> <li>• The instrument should be supplied complete in all respects like appropriate universal power supply (CE power cord), original equipment cover, operating instructions, quick guide, and declaration of conformity and test certificate.</li> <li>• Electrophoresis Cell and Basic Power Supply should be compatible with each other: <b>Mismatch between two companies is not acceptable.</b></li> <li>• <b>Warranty : 5 years exclusive</b></li> </ul>	
7.	11.	<b>2D Gradient Thermal Cycler/ PCR</b>	<ul style="list-style-type: none"> <li>• Touch screen interfaced silver block system for 96 x 0.1/0.2 mL PCR Tube or One 96-well PCR plate</li> <li>• Should be capable of testing temperatures at Denaturation, Annealing &amp; Extension steps</li> <li>• Should have a Gradient block to</li> </ul>	<ul style="list-style-type: none"> <li>• Touch screen interfaced silver block system for 96 x 0.1/0.2 mL PCR Tube or One 96-well PCR plate</li> <li>• Should be capable of testing temperatures at Denaturation, Annealing &amp; Extension steps</li> <li>• Should have a Gradient block to</li> </ul>

S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<p>be able to test 8/12 different temperatures in gradient function</p> <ul style="list-style-type: none"> <li>• Should have a gradient range from 30 – 99°C with 0.1°C minimum gradient spread</li> <li>• Should have differential temperature ranges of 1-30°C or more</li> <li>• Should have a Block temperature control range: 4°C to 99°C and Heating of the block through should be through Peltier elements</li> <li>• Adjustable user defined ramp rate to meet sensitive experimental conditions.</li> <li>• Lid Temperature range: 37 - 110 °C</li> <li>• Should have Block Temperature Accuracy: <math>\pm 0.2^{\circ}\text{C}</math></li> <li>• Should have Block Homogeneity: <math>\leq \pm 0.3^{\circ}\text{C}</math> (20°C to 72°C); <math>\leq \pm 0.4^{\circ}\text{C}</math> (90°C)</li> <li>• Should have a Heating ramp rate of minimum 6-10 °C/s.</li> <li>• Should have a Cooling ramp rate of minimum 4-5 °C/s.</li> <li>• Should have ramp rate individually for heating &amp; cooling from 0.1° C to meet critical amplification conditions</li> <li>• Should have the feature of “instant incubation” to keep samples at constant temp</li> <li>• Should have Intuitive Graphic programming with larger display</li> <li>• Administrator and user login with or without PIN for enhanced security</li> <li>• Should have pre-programmed template for easy selection from 16 temperature protocols</li> <li>• Should have Time or Temperature increment with cycles in PCR program</li> <li>• Should have universal power failure protection or auto Restart facility with user defined time interval when power fails and resumes</li> <li>• Instrument status indicates the step, cycle and remaining</li> </ul>	<p>be able to test 8/12 different temperatures in gradient function</p> <ul style="list-style-type: none"> <li>• Should have a gradient range from 30 – 99°C with 0.1°C minimum gradient spread</li> <li>• Should have differential temperature ranges of 1-30°C or more</li> <li>• Should have a Block temperature control range: 4°C to 99°C and Heating of the block through should be through Peltier elements</li> <li>• Adjustable user defined ramp rate to meet sensitive experimental conditions.</li> <li>• Lid Temperature range: 37 - 110 °C</li> <li>• Should have Block Temperature Accuracy: <math>\pm 0.2^{\circ}\text{C}</math></li> <li>• Should have Block Homogeneity: <math>\leq \pm 0.3^{\circ}\text{C}</math> (20°C to 72°C); <math>\leq \pm 0.4^{\circ}\text{C}</math> (90°C)</li> <li>• Should have a Heating ramp rate of minimum 6-10 °C/s.</li> <li>• Should have a Cooling ramp rate of minimum 4-5 °C/s.</li> <li>• Should have ramp rate individually for heating &amp; cooling from 0.1° C to meet critical amplification conditions</li> <li>• Should have the feature to keep samples at constant temp</li> <li>• Should have Intuitive Graphic programming with larger display</li> <li>• Administrator and user login with or without PIN for enhanced security</li> <li>• Should have pre-programmed template for easy selection from 16 temperature protocols</li> <li>• Should have Time or Temperature increment with cycles in PCR program</li> <li>• Should have universal power failure protection or auto Restart facility with user defined time interval when power fails and resumes</li> <li>• Instrument status indicates the step, cycle and remaining runtime during the run</li> </ul>



S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<p>runtime during the run</p> <ul style="list-style-type: none"> <li>• System memory of more than 100 User folders and more than 300 programs with further expansion through a USB Flash drive for transfer of files</li> <li>• One USB ports: for Protocol transfer, USB Flash drive</li> <li>• Interface: CAN in, CAN out or RS232 interface ports</li> <li>• Option to connect up to 50 PCR variants using computer controlled network</li> <li>• The instrument should be supplied complete in all respects like appropriate universal power supply (CE power cord), cleaning kit, original equipment cover, operating instructions, quick guide, and declaration of conformity and test certificate</li> <li>• 3 KVA online UPS with Battery Backup for minimum 1 hour power supply</li> <li>• Instrument should RoHS compliance system along with IEC &amp; ISO</li> <li>• Accessories must required <ul style="list-style-type: none"> <li>• <b>Pipette (Company-Eppendorf)</b></li> <li>• The state of the art pipette for research work. Fully Autoclavable pipette with separate tip ejector and a new type of volume adjustment. For convenient, rapid volume selection, even single - handed or with gloves. Pipette should be certified and certificates to be provided for <b>CE, ISO-13485.</b></li> <li>• Pipette Piston system should Ultra-light system made of FORTRAN Only.</li> <li>• Pipette volume range- <ul style="list-style-type: none"> <li>• 0.1ul -2.5ul, QTY – (02 No.)</li> <li>• 0.5 – 10ul, QTY- (02, No.)</li> <li>• 2ul – 20ul, QTY- (02 No.)</li> </ul> </li> <li>• All Pipette should come with 5 Year warranty and Manufacturer should have</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• System memory of more than 100 User folders and more than 300 programs with further expansion through a USB Flash drive for transfer of files</li> <li>• One USB ports: for Protocol transfer, USB Flash drive</li> <li>• Interface: CAN in, CAN out or RS232 interface ports</li> <li>• Option to connect up to 50 PCR variants using computer controlled network</li> <li>• The instrument should be supplied complete in all respects like appropriate universal power supply (CE power cord), cleaning kit, original equipment cover, operating instructions, quick guide, and declaration of conformity and test certificate</li> <li>• <b>3 KVA online UPS (2 output Port) with Battery Backup for minimum 1 hour power supply</b></li> <li>• Instrument should RoHS compliance system along with IEC &amp; ISO</li> <li>• Accessories must required <ul style="list-style-type: none"> <li>• <b>Pipette (Company-Eppendorf Research Plus/ ThermoFisher F1/ Sartorius M Line)</b></li> <li>• The state of the art pipette for research work. Fully Autoclavable pipette with separate tip ejector and a new type of volume adjustment. For convenient, rapid volume selection, even single - handed or with gloves. Pipette should be certified and certificates to be provided for <b>European CE, ISO-13485.</b></li> <li>• Pipette volume range- <ul style="list-style-type: none"> <li>• 0.1ul -2.5ul, QTY – (02 No.)</li> <li>• 0.5 – 10ul, QTY- (02, No.)</li> <li>• 2ul – 20ul, QTY- (02 No.)</li> </ul> </li> <li>• All Pipette should come with 5 Year warranty and Manufacturer should have Own NABL calibration</li> </ul> </li> </ul>



S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			Own NABL calibration facility to maintain the service and calibration of pipette during warranty and after warranty period <b>Warranty: 5 years exclusive</b>	facility to maintain the service and calibration of pipette during warranty and after warranty period <b>• Warranty: 5 years for all parts i.e. Comprehensive Maintenance Contract (CMC)</b>
8.	12.	GEL DOC	<ul style="list-style-type: none"> <li>• Sensitive, multimode image capture and analysis via an intuitive touch screen interface and advanced software for analyzing western blots, Stained Nucleic acid Gels, Stained protein gels.</li> <li>• Versatile system to support wide range of applications like-Fluorescent dye like sybrgreen, SYBR safe, Western blotting, 2-D,1-D, Dot Blotting, Nucleic acid detection, Quantitation etc.</li> <li>• The complete capability to replace a Dark Room.</li> <li>• The Exposure time should be from 10 milliseconds to 99 minutes.</li> <li>• Should have high resolution camera with 4 mega pixel or more/greater resolution, 16-bit CCD Camera with 5 megapixels resolution extendable to 20 megapixels, motorized fixed lens 50mm, <i>f</i>/0.95</li> <li>• Illumination source should be 306 nm Trans UV and LED epiwhite.</li> <li>• Should have in-built LCD screen <math>\geq 10</math>" touch screen display</li> <li>• The Software should be able to calculate sample purity automatically based on band and lane intensity and should be able to calculate the relative and absolute quantity of the unknown proteins samples.</li> <li>• UV safety shutoff with widely accessible door to handling gels while placing or moving gels on Transluminator table.</li> <li>• Transluminator size 21 x 26 cm or more and should have super bright technology so as to have</li> </ul>	<ul style="list-style-type: none"> <li>• Sensitive, multimode image capture and analysis via an intuitive touch screen interface and advanced software for analyzing western blots, Stained Nucleic acid Gels, Stained protein gels.</li> <li>• Versatile system to support wide range of applications like-Fluorescent dye like sybrgreen, SYBR safe, Western blotting, 2-D,1-D, Dot Blotting, Nucleic acid detection, Quantitation etc.</li> <li>• The complete capability to replace a Dark Room.</li> <li>• The Exposure time should be from 10 milliseconds to 99 minutes.</li> <li>• Should have high resolution 16-bit CCD Camera with 5 megapixels or higher resolution and motorized fixed lens 50mm, <i>f</i>/0.95</li> <li>• Illumination source should be 306 nm Trans UV and LED epiwhite.</li> <li>• Should have in-built LCD screen 10 or higher" touch screen display</li> <li>• The Software should be able to calculate sample purity automatically based on band and lane intensity and should be able to calculate the relative and absolute quantity of the unknown proteins samples.</li> <li>• UV safety shutoff with widely accessible door to handling gels while placing or moving gels on Transluminator table.</li> <li>• Transluminator size 21 x 26 cm or more and should have super bright technology so as to have publication quality gel image</li> </ul>



S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<p>publication quality gel image with no UV tube background noise.</p> <ul style="list-style-type: none"> <li>• Should be an open platform to accept standard image file types (i.e., TIFF, JPEG, PNG, GIF, BMP files).</li> <li>• The Software should have Vision-Capt software, able to edit the Images image enhancement, image analysis includes molecular weight calculation, band quantification, distance calculation.</li> <li>• The Software should perform Lane Profile Densitometry (Lane and Band Identification) and it should also analyze Molecular Weight; determine the Rf and Molecular Weight of protein or Nucleic Acid Bands using Installed or Custom MW Markers</li> <li>• At least 1 USB &amp; 1 Network Port should be included in the System and the system should get directly connected to the printer.</li> <li>• System should be upgradable and there should be flexibility to add filters.</li> <li>• System should have 4-position filter wheel with F-590 emission filter for ethidium bromide.</li> <li>• Electrical specification: 220 volts, 50Hz. single phase A.C.</li> <li>• Instrument should RoHS compliance system along with IEC &amp; ISO</li> <li>• Should have DIN EN ISO and IEC 17025 certification</li> </ul> <p><b>3 KVA Voltage stabilizer:</b></p> <ul style="list-style-type: none"> <li>• Input Voltage Range: 170 V– 270 V AC</li> <li>• Output Voltage: 230 V ± 1 %</li> <li>• Air Cooled system and digital/analogue display system</li> <li>• Efficiency: ≥ 96 % or <b>IS 9815 Standards</b></li> <li>• Under / Over Voltage Cut off Protection</li> </ul>	<p>with no UV tube background noise.</p> <ul style="list-style-type: none"> <li>• Should be an open platform to accept standard image file types (i.e., TIFF, JPEG, PNG, GIF, BMP files).</li> <li>• The Software should be able to edit the Images like image enhancement, image analysis includes molecular weight calculation, band quantification, distance calculation.</li> <li>• The Software should perform Lane Profile Densitometry (Lane and Band Identification) and it should also analyze Molecular Weight; determine the Rf and Molecular Weight of protein or Nucleic Acid Bands using Installed or Custom MW Markers</li> <li>• At least 1 USB &amp; 1 Network Port should be included in the System and the system should get directly connected to the printer.</li> <li>• System should be upgradable and there should be flexibility to add filters.</li> <li>• System should have 4-position filter wheel with F-590 emission filter for ethidium bromide.</li> <li>• Electrical specification: 220 volts, 50Hz. single phase A.C.</li> <li>• Instrument should RoHS compliance system along with IEC &amp; ISO</li> <li>• Should have DIN EN ISO and IEC 17025 certification</li> </ul> <p><b>3 KVA Voltage stabilizer:</b></p> <ul style="list-style-type: none"> <li>• Input Voltage Range: 170 V– 270 V AC</li> <li>• Output Voltage: 230 V ± 1 %</li> <li>• Air Cooled system and digital/analogue display system</li> <li>• Efficiency: ≥ 96 % or <b>IS 9815 Standards</b></li> <li>• Under / Over Voltage Cut off Protection</li> </ul> <p><b>Accessories must required</b></p> <ul style="list-style-type: none"> <li>• <b>One PC</b> with in-built Wi-Fi device (Dell/HP; Monitor:</li> </ul>

S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<ul style="list-style-type: none"> <li>• Accessories must required               <ul style="list-style-type: none"> <li>• <b>One PC</b> with in-built Wi-Fi device (Dell/Hp; Monitor: 27" with 1440 resolution, <b>wireless Keyboard &amp; mouse</b>) with i7 processor 10<sup>th</sup> generation, 8GB RAM and 250 GB SSD Hardisk and <b>Laser Printer (Hp), Pen Drive – 32 GB;</b> Cleaning kit and Original Equipment Cover</li> <li>• <b>Pipette (Company-Eppendorf)</b></li> </ul> </li> <li>• The state of the art pipette for research work. Fully Autoclavable pipette with separate tip ejector and a new type of volume adjustment (Volume display should be 4 digits). For convenient, rapid volume selection, even single - handed or with gloves. Pipette should be certified and certificates to be provided for CE, ISO-13485.</li> <li>• Pipette Piston system should Ultra-light system made of FORTRAN Only.</li> <li>• Pipette volume range-               <ul style="list-style-type: none"> <li>• <b>10- 100ul QTY- (02 No.),</b></li> <li>• <b>20ul – 200ul, QTY- (02 No.),</b></li> <li>• <b>100ul – 1000ul, QTY- (02 No.)</b></li> </ul> </li> <li>• All Pipette should come with 5 Year warranty and Manufacturer should have Own NABL calibration facility to maintain the service and calibration of pipette during warranty and after warranty period</li> <li>• The instrument should be supplied complete in all respects like appropriate universal power supply (CE power cord), cleaning kit, original equipment cover, operating instructions, quick guide, and declaration of conformity and test certificate</li> </ul> <p><b>Warranty: 5 years exclusive</b></p>	<p>24" with 1440 resolution, <b>wireless Keyboard &amp; mouse</b>) with i7 processor 10<sup>th</sup> generation, 16 GB RAM and 500 GB SSD Hardisk, Quick Heal Total Security Antivirus for 3 years and <b>Laser Printer(Hp), Pen Drive – 32 GB;</b> Cleaning kit and Original Equipment Cover</p> <ul style="list-style-type: none"> <li>• <b>3 KVA online UPS (2 output port) with Min 1hr battery backup;</b></li> <li>• <b>Pipette (Company-Eppendorf Research Plus/ ThermoFisher F1/ Sartorius M Line)</b></li> </ul> <li>• The state of the art pipette for research work. Fully Autoclavable pipette with separate tip ejector and a new type of volume adjustment (Volume display should be 4 digits). For convenient, rapid volume selection, even single - handed or with gloves. Pipette should be certified and certificates to be provided for European CE, ISO-13485.</li> <li>• Pipette volume range-       <ul style="list-style-type: none"> <li>• <b>10- 100ul QTY- (02 No.),</b></li> <li>• <b>20ul – 200ul, QTY- (02 No.),</b></li> <li>• <b>100ul – 1000ul, QTY- (02 No.)</b></li> </ul> </li> <p>All Pipette should come with 5 Year warranty and Manufacturer should have Own NABL calibration facility to maintain the service and calibration of pipette during warranty and after warranty period</p> <li>• The instrument should be supplied complete in all respects like appropriate universal power supply (CE power cord), cleaning kit, original equipment cover, operating instructions, quick guide, and declaration of conformity and test certificate</li> <li>• <b>Warranty: 5 years for all parts i.e. Comprehensive Maintenance Contract</b></li>



S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
				(CMC)
9.	13.	<b>Weighing Balance 220G</b>	<ul style="list-style-type: none"> <li>• Technology, ergonomic style and above all the entirely new/ user-friendly operating design</li> <li>• It helps make workflows much more efficient.</li> <li>• Ensures easy, intuitive operation.</li> <li>• Standard Equipment : <ul style="list-style-type: none"> <li>➤ Leveling Glass level indicator with air bubble for centering</li> <li>➤ Calibration Internal calibration, isoCAL calibration.</li> <li>➤ Selectable weight units : Gram, kilogram, carat, pound, ounce, troy ounce, Hong Kong tael, Singapore tael, Taiwan tael, grain, pennyweights, milligram, parts per pound, China tael, mommes, Austrian carat, tola, baht, meshgal and Newton</li> </ul> </li> <li>• Should have <b>ISO 17025 calibration certification</b></li> <li>• Interface mini USB</li> <li>• Direct data transfer to Microsoft® Windows programs</li> <li>• Programmable interval for data output</li> <li>• Data transfer protocols SBI, xBPI, table format, text format</li> <li>• Display Touch screen with graphical user interface.</li> <li>• Standard built-in applications : <ul style="list-style-type: none"> <li>• Weighing, Density, Percentage, Check weighing,</li> <li>• Languages : English, German, French, Spanish, Italian, Russian, Chinese, Polish, Japanese, Portuguese</li> <li>• Protection – Chemical resistant finish of the top housing</li> <li>• Glass parts of the draft shield are coated to reduce electrostatic influences</li> <li>• Should provide SS spatulas sizes 6” and 8” (10 each)</li> <li>• Should provide Weighing boats (Small and medium) (2 packs</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Warranty: 5 years for all parts i.e. Comprehensive Maintenance Contract (CMC)</b></li> <li>• <b>Should have European CE, ISO 13485, ISO 17025 calibration certification</b></li> <li>• <i>No change in Technical specifications</i></li> </ul>

S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<p>each)</p> <ol style="list-style-type: none"> <li>1. In-use cover: Dust cover for balances with draft shield</li> <li>2. In-use cover: Under-floor weighing Integrated</li> <li>3. Weighing Capacity : 220 g</li> <li>4. Readability : 0.1 mg</li> <li>5. Pan Size : ø 90 mm</li> <li>6. Repeatability : 0.1 mg</li> <li>7. Linearity : 0.2 mg</li> </ol> <ul style="list-style-type: none"> <li>• The instrument should be supplied complete in all respects like appropriate universal power supply, cleaning kit, original equipment cover, operating instructions, quick guide, and declaration of conformity and test certificate.</li> </ul> <p><b>Warranty : 5 years exclusive</b></p>	
10.	14.	<b>Weighing Balance (510g)</b>	<p>Technology, ergonomic style, and above all the entirely new/ user-friendly operating design It helps make workflows much more efficient. Ensures easy, intuitive operation. Standard Equipment :</p> <ul style="list-style-type: none"> <li>➤ Leveling Glass level indicator with air bubble for centering</li> <li>➤ Calibration Internal calibration, isoCAL calibration.</li> <li>➤ Selectable weight units :Gram, kilogram, carat, pound, ounce, troy ounce, Hong Kong tael, Singapore tael, Taiwan tael, grain, pennyweights, milligram, parts per pound, China tael, mommes, Austrian carat, tola, baht, mesghal and Newton</li> <li>➤ Interface mini USB</li> </ul> <ul style="list-style-type: none"> <li>• <b>Should have ISO 17025 calibration certification</b></li> <li>• Direct data transfer to Microsoft® Windows programs</li> <li>• Programmable interval for data</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Warranty: 5 years for all parts i.e. Comprehensive Maintenance Contract (CMC)</b></li> <li>• <b>Should have European CE, ISO 13485, ISO 17025 calibration certification</b></li> <li>• <i>No change in Technical specifications</i></li> </ul>



S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<p>output</p> <ul style="list-style-type: none"> <li>• Data transfer protocols SBI, xBPI, table format, text format</li> <li>• Display Touch screen with graphical user interface.</li> <li>• Standard built-in applications : <ul style="list-style-type: none"> <li>▪ Weighing, Density, Percentage, Check weighing,</li> <li>▪ Peak Hold, Counting, Unstable Conditions</li> </ul> </li> <li>• Languages : English, German, French, Spanish, Italian, Russian, Chinese, Polish, Japanese, Portuguese</li> <li>• Should provide SS spatulas sizes 6" and 8" (10 each)</li> <li>• Should provide Weighing boats (Small and medium) (2 packs each)</li> <li>• Protection – Chemical resistant finish of the top housing</li> <li>• Glass parts of the draft shield are coated to reduce electrostatic influences</li> <li>✓ In-use cover: Dust cover for balances with draft shield</li> <li>✓ In-use cover: Under-floor weighing Integrated</li> <li>✓ Weighing Capacity : 510 g</li> <li>✓ Readability : 1 mg</li> <li>✓ Pan Size : ø 120 mm</li> <li>✓ Repeatability : 1 mg</li> <li>✓ Linearity : 2 mg</li> <li>• The instrument should be supplied complete in all respects like appropriate universal power supply, cleaning kit, original equipment cover, operating instructions, quick guide, and declaration of conformity and test certificate.</li> </ul> <p><b>Warranty : 5 years exclusive</b></p>	
11.	18.	Refrigerator	<ul style="list-style-type: none"> <li>• Energy Efficiency: 3 Star Rating</li> <li>• Capacity: 350 litres</li> <li>• Annual Energy Consumption: 243 KWH</li> </ul>	<ul style="list-style-type: none"> <li>• Energy Efficiency: 3 Star Rating</li> <li>• Capacity: 370 litres (Actual) Laboratory scale</li> <li>• Annual Energy Consumption:</li> </ul>

S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<ul style="list-style-type: none"> <li>• Refrigerator Fresh Food Capacity: 170 litres</li> <li>• Freezer Capacity: 64 Litres</li> <li>• Bottle Count: 5</li> <li>• Installation Type: Freestanding</li> <li>• Form Factor: Standard, double door</li> <li>• Special Features: Stabilizer free operation and toughened glass shelves, Jumbo vegetable tray, Anti-bacterial removal basket and Widest shelves</li> <li>• Voltage: 230 Volts/ 50 Hz</li> <li>• Shelf Type: Toughened Glass</li> <li>• Number of Shelves: 3</li> <li>• Certification: Energy Star</li> <li>• Special features: stabilizer free operation, ice twister and collector, fresh flow flexi vents, everyday fresh-easy slide tray, antibacterial filter, micro block technology, 6th sense deepfreeze technology and chilling gel</li> <li>• The instrument should be supplied complete in all respects like appropriate universal power supply, operating instructions, quick guide, and declaration of conformity and test certificate</li> <li>• <b>Warranty : 5 years exclusive and 10 years on compressor</b></li> </ul>	<ul style="list-style-type: none"> <li>• 243 KWH</li> <li>• Installation Type: Freestanding</li> <li>• Form Factor: Standard, double door</li> <li>• Special Features: Stabilizer free operation and toughened glass shelves, Jumbo vegetable tray, Anti-bacterial removal basket and Widest shelves</li> <li>• Voltage: 230 Volts/ 50 Hz</li> <li>• Shelf Type: Toughened Glass</li> <li>• <b>Number of Shelves: 5</b></li> <li>• Certification: Energy Star</li> <li>• Special features: stabilizer free operation, ice twister and collector, fresh flow flexi vents, everyday fresh-easy slide tray, antibacterial filter, micro block technology, 6th sense deepfreeze technology and chilling gel</li> <li>• The instrument should be supplied complete in all respects like appropriate universal power supply, operating instructions, quick guide, and declaration of conformity and test certificate</li> <li>• <b>Warranty : 5 years for all parts i.e. Comprehensive Maintenance Contract (CMC) and 10 years on compressor</b></li> <li>• <b>ISO 9001:2008 - ISO 14001 - DS/OHSAS 18001:2008</b></li> </ul>
12.	26.	<b>Multi-position Hot plate Magnetic Stirrer</b>	<ul style="list-style-type: none"> <li>• Multi Position (6 beaker 400 ml) hot plate Magnetic Stirrer (SS 304 grade)</li> <li>• Should have synchronous stirring and heating of 6 positions</li> <li>• Should have homogeneous temperature from 0°C to 120°C for all positions</li> <li>• <b>Stirring position distance 100 mm</b></li> <li>• Fitted speed regulator form 5-1200 RPM <math>\pm</math> 5 with 6 brushless motor</li> <li>• Timer range 1 minute to 90 minutes</li> </ul>	<ul style="list-style-type: none"> <li>• Multi Position (6 beaker 400 ml) hot plate Magnetic Stirrer (SS 304 grade)</li> <li>• Should have synchronous stirring and heating of 6 positions</li> <li>• Should have homogeneous temperature from 0°C to 120°C for all positions</li> <li>• <b>Stirring position distance 100 mm</b></li> <li>• Fitted speed regulator form 5-1200 RPM <math>\pm</math> 5 with 6 brushless motor</li> <li>• Timer range 1 minute to 90</li> </ul>



S. NO	TENDER ITEM NO.	NAME OF INSTRUMENT	OLD SPECIFICATION	AMENDED SPECIFICATIONS
			<ul style="list-style-type: none"> <li>• Safe hot plate warnings when the plate temperature is above 50°C</li> <li>• Should have lock feature which prevents unintentional changes</li> <li>• Instrument should have supply with magnetic stirring bars (15x8mm)</li> <li>• Digital display and PID controller</li> <li>• <b>Should have CE and ISO certification</b></li> <li>• The instrument should be supplied complete in all respects like appropriate universal power supply, cleaning kit, original equipment cover, operating instructions, quick guide, and declaration of conformity and test certificate</li> <li>• <b>Two Room heater with blower (2000W)</b></li> <li>• <b>Warranty : 5 years exclusive for Instrument and (Heating mental + Blower)</b></li> </ul>	<ul style="list-style-type: none"> <li>minutes</li> <li>• Safe hot plate warnings when the plate temperature is above 50°C</li> <li>• Should have lock feature which prevents unintentional changes</li> <li>• Instrument should have supply with magnetic stirring bars (15x8mm)</li> <li>• Digital display and PID controller</li> <li>• <b>Should have European CE and ISO certification</b></li> <li>• The instrument should be supplied complete in all respects like appropriate universal power supply, cleaning kit, original equipment cover, operating instructions, quick guide, and declaration of conformity and test certificate</li> <li>• <b>Two Room heater with blower (2000W)</b></li> <li>• <b>Warranty: 5 years for all parts i.e. Comprehensive Maintenance Contract (CMC)Instrument and (Heating mental + Blower)</b></li> </ul>

All other information's as per original tender.

2. Following Items are available in RAJUVAS Rate Contract order No. F.17-b/RAJUVAS/(COMP/PUR)2019-20/474 Dated: 07.07.2020 hence, these Items are deleted from E-Tender -01

**Table No. 2**

S. No.	Tender Item No.	Name of Instrument
1.	5.	Hot Air Oven- MEMMERT TYPE
2.	7.	BOD Incubator
3.	8.	Laminar Air Flow (Vertical air flow)
4.	9.	Bacteriological incubator MEMMERT TYPE
5.	15.	Laboratory water bath
6.	16.	Gerber centrifuge
7.	17.	Muffle furnace
8.	19.	Deep freezer
9.	20.	Electronic balances (1-100 kg)
10.	21.	Electronic balances (10) kg
11.	22.	Digital Milk Analyser


12.	23.	Water Double distillation assembly
13.	24.	Soxhlet apparatus
14.	25.	Digital Colony Counter
15.	27.	Laboratory Heating Mantle One 500mL & One 1000 mL
16.	28.	Vortex Mixer
17.	29.	Kjeldahl Digestion Distillation and Fume extraction system
18.	30.	Automatic Fibre estimation system

**Note:**

1. Bidders are requested not to quote rates and technical bio-data for above mentioned items (Table No. 2). If any bidder quotes the rates and Technical Bio-data will be treated as cancelled.

2. Due to deletion of above items (Table No. 2) the estimated cost of e-Tender will be Rs. 52.70 Lakh and all terms and conditions are as per Tender documents.

*(Handwritten signature and initials)*

  
**Prof (Dr.) D.S. Meena**  
 Dean