

# **BIHAR ANIMAL SCIENCES UNIVERSITY**

Bihar Veterinary College Campus, Patna - 800 014, Bihar https://basu.org.in

# TENDER DOCUMENT FOR SUPPLY AND INSTALLATION OF

VARIOUS LABORATORY EQUIPMENTS/INSTRUMENTS
THROUGH
E-PROCUREMENT MODE

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THE COLLEGE OF FISHERIES, KISHANGANJ

Tender No.: 18/CPC/BASU/2021-22

Dated: ..45../02/2022

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# **NOTICE INVITING e-TENDER (NIT)**

NIT No.: - 18/CPC/BASU/2021-22

Dated: ..1.5./02/2022

**Sub.:** Notice Inviting e-Tender (E-Procurement mode only) for the supply and installation of various laboratory equipments/instruments for the College of Fisheries, Kishanganj.

1. Bihar Animal Sciences University, Patna invites online tenders (https://www.eproc.bihar.gov.in/BELTRON) in Two Bid System (Technical Bid and Financial Bid) from Reputed, Eligible and Qualified Firms/Manufacturer/Suppliers of the following laboratory equipments/instruments for the College of Fisheries, Kishanganj.

Gr. No.	Brief Description of equipments/instruments	Place of supply & Installation	Quantity	Amount of Bid Security/ EMD in INR
1.	Microscope with Imaging System	College of Fisheries, Kishanganj	01	15000.00
2.	Deep Freezer (-80)	-Do-	02	30000.00
3.	Refrigerated Centrifuge	-Do-	01	18000.00
4.	Real -Time PCR	-Do-	01	40000.00
5.	Nano- Spectrophotometer	-Do-	01	21000.00
6.	Gel Documentation System	-Do-	01	18000.00
7.	Water Purification System	-Do-	01	15000.00
8.	Clean Bench Systems for Biosafety Cabinets	-Do-	01	15000.00
9.	CO <sub>2</sub> Incubator	-Do-	01	18000.00
10.	Microtome	-Do-	01	15000.00
11.	Paraffin Embedding System	-Do-	01	24000.00
12.	Automatic Tissue Processor	-Do-	01	42000.00
13.	Trinocular Microscope with Imaging System	-Do-	01	18000.00
14.	Inverted Microscope	-Do-	01	15000.00
15.	Biosafety Cabinet Level -II	-Do-	01	15000.00
16.	Elisa Reader	-Do-	01	18000.00
17.	UV/VS Spectrophotometer	-Do-	01	6000.00
18.	Ultra Centrifuge	-Do-	01	15000.00
		Total	19	

2. Schedule of Requirement: -

Sl. No.	Activity	Date and Time
1.	Online Sale/Download date of Tender documents	From!%/02/2022 to!3/03/2022 (15:00 Hrs.) (https://www.eproc.bihar.gov.in)
2.	End Date/Time for submission/uploading of offer/Bid	/03/2022 upto 16.00 Hrs. (https://www.eproc.bihar.gov.in)
3.	Pre-Bid Meeting	92./03/2022 at 14.30 Hrs., Conference Hall-2, BVC, Patna
4.	Submission of EMD in Hard copy (Original)	Before the time of opening of technical bid (Procurement Office, Administrative Building, Bihar Animal Sciences University, Patna-800 014)
5.	Date & time for opening of Technical Bid	15/03/2022 at 15.00 Hrs. (https://www.eproc.bihar.gov.in)
6.	Contact person/Nodal Officer for queries	Director Procurement, Bihar Animal Sciences University, Patna
7.	Financial Bid Opening Date and Time	It will be intimated later on (https://www.eproc.bihar.gov.in)

- Tender enquiry documents containing detailed specifications along with terms and condition
  can be downloaded from the e-Procurement Portal
  https://www.eproc.bihar.gov.in/BELTRON.
- 4. EMD must be enclosed with the hard copy of Technical Bid of the Tender in the form of Demand Draft from any Nationalised Bank in favour of FINANCE COMPTROLLER, Bihar Animal Sciences University, Patna. EMD paid through manual mode only. No interest is payable on Bid Security. Tenders without EMD shall be summarily rejected.
- 5. In the event of any of the above-mentioned dates being declared as a holiday/closed day for BASU, Patna, the tender will be opened on the next working day at the prescribed venue and time.
- 6. Tenderers need not to be present at the time of opening of tender as all procedures will done on online mode <a href="https://www.eproc.bihar.gov.in/BELTRON">https://www.eproc.bihar.gov.in/BELTRON</a>
- 7. This Tender Enquiry Document is not transferable.

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### **GENERAL TERMS AND CONDITIONS**

- 1. The technical and financial bids should be submitted through online mode as mentioned respective stage "Technical bid" / "Financial bid" as applicable.
- 2. Each instrument has to be tendered separately.
- 3. The bidder must provide either the Original Equipment/item Manufacturer (OEM) or their Authorized Distributor Certificate on their letter head in prescribed format (Annexure-I). If the same is not provided with Technical Bid the tender will be summarily rejected.
- 4. The vendors must have executed same nature of work in the **last 2 years**. The user list of such institutions, with name of item and the cost may also be supplied with the bids. Recent orders in government organization should also be enclosed.
- 5. The Financial Bid should include the cost of main Equipment/items and its essential accessories at F.O.R delivery including of all taxes, GST, charges for insurance and transportation of the goods, agency commission, installation & commissioning, training charges etc. if any.
- 6. The printed literature and catalogue/brochure giving full technical details should be included with the technical bid to verify the specifications quoted in the tender. The bidders should submit copies of suitable documents in support of their reputation, credentials and past performance.
- 7. Price bids of only those bidders will be opened whose technical bids are found suitable by the committee appointed for the purpose. Date and time of opening of price bids will be decided after technical bids have been evaluated by the committee. Information in this regard will be placed on the website or e-mail. No separate information will be sent to the firms. In exceptional situation, an authorized committee may negotiate price with the qualified bidder quoting the lowest price before issuing the purchase order.
- 8. NSIC/MSME units are exempted for submitting EMD as per GOI order.
- 9. Earnest Money Deposit (EMD): Bidder needs to submit the refundable EMD as mentioned against the individual equipments/instruments in the form of Demand Draft only in favour of FINANCE COMPTROLLER, Bihar Animal Sciences University, Patna. The original hard copy of EMD should be submitted through manual mode only, however, scan copy of EMD document should be uploaded on e-procurement portal. Failure to submit the EMD on due date will lead to the rejection of the tender.
- 10. No interest shall be payable by the buyer to the bidder on EMD.
- 11. While sending rates, the firm shall give an undertaking to the effect that "the terms /conditions mentioned in the Inquiry Letter/Tender Notice against which the rates are being given are acceptable to the firm". In case the firms do not give this undertaking, their rates will not be considered.
- 12. All disputes shall be subject to Patna Jurisdiction only.



- 13. All tenders in which any of the prescribed conditions is not fulfilled or any condition is put forth by the tenderer shall be summarily rejected.
- 14. Bihar Animal Sciences University, Patna reserves the right to cancel the tender at any point of time without assigning any reason.
- 15. The offer submitted by Telegram/E-mail/Speed post shall not be considered. No correspondence will be entertained in this matter.
- 16. Duly signed hard printed copy of all tender documents (submitted on e-procurement portal) should be submitted by the tenderer to Procurement Office, Administrative Building, Bihar Animal Sciences University, Patna-800 014 latest by ....../03/2022.
- 17. Bidders must submit duly stamped envelope (for registered/speed post) with complete postal address for refund of EMD documents.
- 18. Bidders should go through the tender terms, conditions and specifications carefully and fill in the attached compliance statement accurately and unambiguously. They should ensure that all the required documents are furnished along with the bid.
- 19. Signing of Tender documents: A person signing the tender form or any document forming part of the tender on behalf of another person should have an authority to bind such other person and if, on enquiry it appears that the person so signing had no authority to do so, Bihar Animal Sciences University, Patna may without prejudice, cancel the contract and hold the signatory liable for all costs, consequences and damages under the civil and criminal remedies available.
- 20. The tenderer should sign and affix his firm's stamp at each page of the tender and all its annexure as the acceptance of the offer made by tenderer will be deemed as a contract and no separate formal contract will be drawn. No page should be removed/ detached from this notice inviting tender.



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### SPECIAL TERMS AND CONDITIONS FOR TENDERERS

The following terms and conditions should be complied with during submitting tender:-

- 1. Online https://www.eproc.bihar.gov.in/BELTRON tender invited in two bid systems.
- 2. Tenders should be submitted to the e-Procurement Portal <a href="https://www.eproc.bihar.gov.in/BELTRON">https://www.eproc.bihar.gov.in/BELTRON</a> only.
- Delivery schedule with definite date of delivery at destination taking into cognizance of transit facility must be indicated. This contractual delivery date/ period should be inclusive of all the lead time.
- 4. The tenderer submitting his tender would be deemed to be considered and accepted all the terms and conditions. No enquiries, verbal or written shall be entertained in respect of acceptance or rejection of the tender.
- 5. Bihar Animal Sciences University, Patna reserves the right to cancel/ reject in or any part of the tender, which generally do not fulfil the conditions stipulated in the tender without assigning any reason.
- 6. Any action on the part of tenderer to influence anybody of the university shall make his/ their tender liable for rejection.
- 7. In case of placement of purchase order, the vendor (the tenderer whose tender is accepted) may comment on the purchase order within 10 days from the date of dispatch of purchase order otherwise it seems that offer is acceptable to the vendor.
- 8. Bihar Animal Sciences University, Patna may in writing make any revision or change in the purchase order, including additions or deletions from the quantities originally ordered or in the specifications or drawing. If any such revisions/ changes affect the price or delivery, the same shall be subject to the adjustment of price/ delivery, wherever required on a reasonable basis by mutual agreement in writing which should be communicated.
- 9. The institute reserves the right to cancel the purchase order or any part thereof shall be entitled to revise the contract wholly or in a part by written notice to the vendor if:-
  - (a) The vendor fails to comply with the terms and conditions of the purchase order including specifications and other technical requirement.
  - (b) The vendor becomes bankrupt or goes into liquidation.
  - (c) The vendor fails to deliver the goods in time and or does not replace the rejected goods promptly.
  - (d) A receiver is appointed for any of the property owned by the vendor.
- 10. Upon the receipt of the said cancellation notice, the institute shall discontinue all works of the purchase order and matters connected with it.

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- 11. Supply order will be issued as per the requirement of the institute. The supplier will have to supply ordered materials within the delivery time mentioned in the supply order.
- 12. Unless otherwise specified in the order, the order price shall remain firm and will not be subject to escalation of any description during the dependency of the order, notwithstanding the change in the cost of material and components he/they may take clearance while the order is under execution even if the execution of the order for any reason whatsoever.
- 13. The institute may its option, reject such defective materials at the vendor's expense in which event the vendor shall, without any cost to the Institute and as promptly as possible, remove such materials and furnish and install proper and acceptable material.
- 14. In the event of delay delivery and/or unsatisfactory manufacturing progress and supply, the Institute has the right to cancel the purchase order as whole or in part without liability for cancellation charges.
- 15. Timely delivery as mentioned in purchase order shall be in the essence of the order and no variation shall be permitted except with prior authorization in writing from the Institute.
- 16. In the event of delay in making delivery on the part of the vendor, it will be at Institute discretion to receive delivery with a reduction in price of the article/or equipment.
- 17. Forced measure shall mean and be limited to the following: -
  - (a) Any war/hostilities
  - (b) Any riot or civil communication
  - (c) Any earthquake, flood, tempest, lighting or other natural physical disaster.
  - (d) Any strike or lock up (Only those exceeding ten continuous days' duration) affecting the performance of the vendor's obligation.

The seller shall advise the Institute by Registered Letter duly certified by local chamber of commerce of statuary authorities the beginning and end of the above caused of delay within 7 days of occurrence and cessation of such forced measure concern. In the event of delay lasting over one month, if arising due to our cause of force measure, the Institute reserves the right to cancel the order.

- 18. No payment shall be made for rejected materials nor the tenderer be entitled to claim for such items.
- 19. Rejected materials would be removed by the tenderer from the site within two weeks or the date of rejection at their own cost. In case they are not removed they will be auctioned at the risk and responsibility of the suppliers without any further notice.
- 20. In case of not honouring the supply order, the Institute will have the right to impose penalty as deemed fit and to resort to make purchase at the suppliers' cost and risk and his security deposit may be forfeited in favour of the Institute cost and risk.
- 21. Taxes & Levies rates of inclusive of all taxes, duties and GST. No extra payment will be made by the BASU, Patna in this regard.



- 22. Disputes, if any, arising between the Institute and the bidder out of or in connection with the terms and conditions contained herein shall be referred for arbitration to the Patna jurisdiction. Disputes shall be decided keeping in view of the terms and conditions of the tender and Bihar Financial Rules applicable to the Institute.
- 23. Bihar Animal Sciences University, Patna have DSIR Certificate (Reg. No.: TU/V/RG-CDE (1293)/ 2020 Dated: 07.01.2021). Hence, Customs Duty exempted on all the scientific equipment and GST should be quoted @5% only. So, price should be quoted considering this point and DSIR certificate may be made available on demand at the time of issue of supply order.
- 24. Minimum two-years onsite comprehensive warranty from the date of installation shall be provided.
- 25. No Advance payment shall be made.
- 26. For delay in supply, BASU will charge liquidated damage @0.5% per week maximum 10% after which the order will be cancelled.
- 27. Performance Guarantee: The vendor shall furnish unconditional Performance Bank Guarantee (PBG) @ 7.0% of the order value for the entire period of warranty i.e. 26 months and should be submitted at the time of supply the order in the form of Bank Guarantee (Annexure-II)/ Fixed Deposit Receipt (FDR)/ Term Deposit Receipt (TDR) in favour of "Finance Comptroller, Bihar Animal Sciences University, Patna".
- 28. Validity of the bid shall be 90 days from the date of opening of quotation/tender.
- 29. The quoting party should give a certificate to the effect that the quoted prices are the minimum and they have <u>not quoted</u> the same item on lesser rates than those being offered to university to any other customer nor they will do so till the validity of offer or execution of the purchase order, whichever is later.
- 30. Copies of at least last two-supply orders received from other customers or details of last two supplies made to other customers preferably in India for the same item/model may be submitted with the offer giving reasons of price difference of their supply order & those quoted to us, if any.

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### TENDER FORM

To,

The Director-Procurement, Bihar Animal Sciences University, Patna-14

Subject: Tender Notice No.: .....

Sir,

I have gone through the terms and conditions laid down in the tender documents and accept the same.

I am hereby submitting the bid and enclosing the documents as per details given below:

### CHECK LIST

Sr. No.	Particulars	Remarks
-171.	Original EMD attached	Yes/No
2.	Attested copies of GST registration	Yes/ No
3.	Attested copies to PAN (Permanent Account Number)	Yes/No
4.	Technical bid in the prescribed format uploaded	Yes/No
5.	Financial bid in the prescribed format uploaded	Yes/No
6.	Valid Authorization Letter from the manufacturer on their Letter Head	Yes/No
7.	Audited balance sheet of the firm of the last three years issued from registered chartered accountant firm	Yes/ No
8.	Income Tax Return copy of the last three years	Yes/ No
9.	Address Proof	Yes/No
10.	Details of reputed Organizations where the tenderer has executed/running during last two years with proof	Yes/ No
11.	Experience certificate of the last three years	Yes/No
12.	Self-Declaration No Blacklisting	Yes/No
13.	Certificate that firm possesses its Service Centre in Bihar / Pan India	Yes/No
14.	All pages of the tender document are to be serially number, signed and stamped by the vendor	Yes/ No

Yours faithfully,

Name and Signature of the authorized person of the firm/tenderer along with seal

Place:

Date:

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1. (a) Name of the	e Tenderer:
(b) Status of the	e Tenderer:
(i) Manufacture	r/Importer:
(ii) Proprietorsh	ip:
2. Partnership/Com	ipany
Full Postal Addr	ess
	<u> </u>
3. Telephone No.:	
4. Mobile No.:	
5. Fax No.:	
6. e-mail address:	
7. (a) Names of agen	cies with whom:the tenderer is registered.
	urement agencies to whom:
	pplied during last 2 years:
8. Bank details of the	ne bidder:
Name of Accoun	nt Holder:
Name of Bank:.	
Bank Account N	lo.:
IFSC & MICR (	Code:
	Bank:

TECHNICAL BID

I am enclosing duly signed Technical specification of the items offered in response of this Bid.

Seal & Signature of Bidder

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	TECHNICAL BID SHEET			LANGERS .	
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# Chapter - 6

# Technical Compliance of the Bidder with reference to the 'Specification of Equipment's'/items (Separate form to be used for each items/equipments offered)

Name of the Bidder/Tenderer:

Tender No.:

Name and Model No. of offered goods/equipment/items:

Make:

Gr. No.	Technical specification from Bihar Animal Sciences University	available in equipment'	CONTRACTOR OF THE PROPERTY OF	Corresponding part number/ datasheet/ page no. in broacher in support of specification
	1. MICROSCOPE WITH IMAGIN	G SYSTE	M	
1.	<ol> <li>Type: Upright compound microscope with full Koehler Illumination</li> <li>Control Display: 5-element display on either side of the stand and long-life blue LEDs. This intensity display is well readable from several meters distance.</li> <li>Contrasting Method: Bright field. Upgradeable to Phase Contrast, Dark-Field, simple Polarization and</li> </ol>			
	Fluorescence 4. Illumination  • With modular slide-in concept  • Must be easy change of illuminators from LED to halogen  • LED illumination 3W white-light, 5600K, lifetime 35000 hours			
	<ul> <li>Halogen illumination with 6V 30W halogen lamp</li> <li>Homogeneous field illumination 22mm</li> <li>Light manager remembers precise amount of light set for each lens position</li> <li>Optical system: Colour-corrected infinity optics</li> <li>Eyepiece</li> <li>A pair of eyepieces 10x suitable for spectacle</li> </ul>			
	wearers and retro fittable eyepiece pointer     Eyepiece with field of view of 22mm     Eyepieces secured with setscrews against unauthorized removal			
	<ul> <li>7. Objectives: With High quality objectives of the iPlan-Achromat class:</li> <li>iPlan-Achromat 4x/0.1 WD: 30.7 mm</li> <li>iPlan-Achromat 10x/0.25 WD: 17.4 mm</li> <li>iPlan-Achromat 40x/0.65 WD: 0.6 mm</li> <li>iPlan-Achromat 100x/1.25 WD 0.30 mm</li> <li>5-position nosepiece tilted back and objectives</li> </ul>			

secured against unauthorized removal

8. **Condenser:** Focusable and centerable Abbe condenser 0.9/1.25. With Holder for phase contrast and darkfield sliders

### 9. Viewing Tube

- Viewing and Trinocular tubes (50%:50%) with 25° angle and field of view 22mm
- Siedentop "up and down" position for 2 different viewing heights
- With interpapillary distance continuously variable from 48 to 75 mm by asymmetric folding of the binocular part
- Tube is secured against dropping by special dovetail

### 10. Stage

- Mechanical reckless stage with long-lived stage surface with right-controls
- Stage size 185x135, travel range 75x50
- With well-readable Vernier and long "Ergonomic" stage drive
- With double-slider holder

### 11. Power

- With power unit integrated into stand with cable storage at the backside of the stand. Ergonomic shape for convenient, safe carrying.
- 5V USB port at the back of the stand to connect a power bank or charge mobile device
- ECO mode, automatically go into a sleep mode after 30min inactivity
- 12. Filters: Colour filter set blue, green and yellow
- 13. Dust Cover: With Dust Cover
- 14. Anti-fungus treated optics. Must provide antifungus certification from manufacturer.

### 15. Camera

- Colour camera 8 Megapixels or better, pixel count

   3840\*2160, exposure range of 0.06 ms to 1 s
   with a frame rate of 30 fps with a passive cooling system.
- Camera should have interfaces HDMI, USB 3.0
  Type C, Ethernet, Micro-D Full 4k Resolution in
  30 fps.
- The camera shall provide an on-screen display (OSD) that allows to control the camera without an extra controller/computer or software.
- In the OSD, camera parameters and the image file name shall be selected and adjusted via mouse and keyboard.
- Images shall be stored conveniently on a USB flash drive.
- The camera shall support both, the operation in stand-alone mode and in combination with a computer and software.
- The camera shall provide multiple setup possibilities to use it in a wireless mode
- 16. Microscope and camera should be from same manufacturer and System should be ISO and CE

201 MP - 200 France	Certified.  17. System should come with desktop (All in one desktop: Intel Core i5, Memory 8 GB, Hard Disk Drive 1 TB or higher SATA Hard Drive) with data analysis software  18. The system should have minimum 2 years onsite comprehensive warranty from the date of installation.	ntrina (ČIP COA)	(245)
	2. DEEP FREEZER (-80)		
2.	<ol> <li>Capacity: 360-380 Ltrs</li> <li>External dimension should be within (H x W x D cm): 200 x 95 x 85</li> <li>Must include NON-CFC REFRIGERANTS</li> <li>13 cu. ft. capacity Upright, with (2) 1 horsepower compressors</li> <li>Latch and handle for ergonomic handling and one hand operation with padlock capability</li> <li>Durable Steel interior with Inner doors.</li> <li>Down-feed evaporator</li> <li>Adjustable solid Stainless Steel shelves</li> <li>Triple-scaling silicone door gasket</li> <li>5" non-CFC foamed-in-place polyurethane insulation; 4.5" in door</li> <li>Two 10" tube axial fans to provide maximum cooling of the compressor Housing</li> <li>Heavy-duty dual wheel swivel locking casters.</li> <li>Automatic voltage compensator responds to high and low voltages</li> <li>Powder coat paint for a durable surface</li> <li>Service valves provided to allow easy recovery of refrigerants and field servicing.</li> <li>Front to back airflow with Removable, cleanable air filter</li> <li>Hinged grill swings out for easy access to filter and battery</li> <li>A vacuum relief port allows easy re-entry after door openings</li> <li>4" open x 12" long heavy duty hinge for ensuring positive closure and Un-interruptive service</li> <li>TEMPERATURE CONTROL</li> <li>The microprocessor controller must monitor in one degree C increments, with digital display.</li> <li>Eye Level Information center for At-a-Glance Monitoring</li> <li>Temperature probe must be positioned to insure the alarm sounds before the stored product can be affected by a rise in temperature.</li> <li>Battery back-up for the alarm monitoring system</li> <li>Both visual and audible alarms must alert operator of over and under temperature, power fail, door ajar, and low battery conditions</li> <li>Dry contacts included for connection to optional remote alarms.</li> <li>Optional deve level recorder mounted in the door or optional data logger</li> </ol>		
	21. CERTIFICATIONS: CE Mark. Manufactured by an	190 Euro	

7 35			
	ISO-9001 company 22. The system should have minimum 2 years onsite comprehensive warranty from the date of	is and their mark of the Att	
	installation.		
	3. REFRIGERATED CENTRIFUGE	Č.	
3.	1. Capacity: 4x145ml		
٥.	2. Speed: 17,800 RPM	to the beautiful to the	
	3. RCF: 30,000xg	A VIII AND	
	4. Temperature range: -10°C to 40°C	10.2	
	5. The rotor should have auto lock system by which it		
	can be installed and removed with no tools.	(#200 B/90	
	6. Should have One-touch operation with pre-saved		
	protocols. 3 direct program buttons, 96 additional	ATSME PISSA	
	programs accessible via folder.	47 SEC 1994 ST 1997 ST	
	7. Should have Pre-Cooling Function with direct button.		
	8. Refrigeration System should be CFC Free.	TO SERVE OF SERVE	
	9. Sound Level should not be more than 56 dBA.	Accompany to	
	10. Shouldn't have drainage system.	108	
	11. Bucket lids must operate in a safe manner without	City (afril)	
	spring clips or metal components.	700	
	12. Centrifuge must have a swing out rotor capable of		
	spinning samples above 16,000 xg.		
	13. The machine should offer following rotors to meet	TABLE SING OF THE	
	future needs of the lab by just adding rotors:	连电路(AVA)	
	• Fixed angle rotor 6 x 50 mL Individually Sealed		
	Rotor, 5,600 rpm, and 5,014 x g.	ST B VOC. III	
	• 4 standard or 2 deep well micro plates, PCR strips	design 1121	
	and haematocrit capillaries		
	• Rotor for running up to 30 spin columns in		
	certified sealed angle rotor, 14000RPM, 22000xg	10 BH	
	• Swing out rotor to spin 8 x 50ml or 15 ml conical	HURSEY CO.	
	tubes. 4000 RPM, 3300xg		
	14. Rotor to be supplied:	2.400	
	• Fixed angle rotor 6 x 50 ml in bio containment	512 (B)	
	certified angle rotor, with speed not less than 9,500	CORDINATE DESCRIPTION	
	rpm, 12,100 x g, and Adapter for 15 ml tube	No. 11 Control of the	
	• Swinging out plate rotor with capacity of 4x	2.4374E	
	standard or 2 deep well plate with speed		
	4400RPM, 2500xg.	76.台间基本	
		Garadita	
	speed not less than 17,800 rpm / 30,200 x g		
	15. CE marked, IVD compliant, UL listed- for safety	DOMESTIC TO	
	containment	dydda y y	
	16. The system should have minimum 2 years onsite	leval a roma	194
	comprehensive warranty from the date of installation.		
	4. Real-Time PCR	nus 1800	
4.	1. The system should be automated integrated 96 well	Tida 1 to 1 to 1	. 3
1	peltier based for both real-time PCR and post-PCR	E-MO(Comp.	
	(end-point) analysis with 6 independently controlled	chaean 13-4	
	zones.	30.20	
	2. It should have interactive touch screen LCD for		
	standalone operation with 8 10 GB onboard	and the Company of the Company	
	memory for storage of at least 1600 - 2000 runs.		
	3. System should support minimum recommended		
	reaction volume of 10–30 µL/10–100 µL for 0.1/0.2		
100	mL block.		THE CASE OF

- 4. The Quoted System Should support the temperature range from 40 to 100°C with block ramp more than 6 DegC/sec, and run time less than 40 minutes.
- 5. System should have four coupled / six de-coupled excitation and emission filter sets to enable collection of up to 21 unique combinations of wavelengths during a single run for multiplexing five colours or above.
- 6. The System should utilize a bright white LED source, excitation by LED light source with a > 5 years lifespan and detection by CMOS/CCD with whole plate imaging and detection.
- 7. The system should be factory calibrated for the following FAM/SYBR Green, VIC/JOE/HEX/TET, ABY/NED/TAMRA/Cy®3, JUN, ROX/Texas Red<sup>TM</sup> dyes
- 8. The system should be able to do applications such as Gene Expression, Genotyping, Copy Number Variation, Pathogen Detection, Strain Typing, and Viral Load, Mutation Scanning, Methylation and other Epigenetic
- Applications, miRNA profiling, Protein analysis with proximity ligation assays and Protein Thermal Shift technology.
- 10. System should detect differences in target quantity as small as 1.5-fold in singleplex reactions, and should have 10 logs of linear dynamic range.
- Single-plate analysis Absolute and relative gene expression, SNP genotyping, presence/absence, high resolution melt, Multiplate analysis Gene expression studies, SNP genotyping studies.
- 12. The normalization of reaction due to non-PCR related fluctuations should be possible by using any calibrated dye.
- 13. The system can be connected to the online ecosystem and instrument data/status will be automatically uploaded, allow users to access and securely share result with colleague anywhere, anytime from any location with internet access
- 14. Features to assist with 21 CFR part 11compliance Security, auditing and e-signature, CE, ISO, and MIQE compliant
- 15. System should come with desktop (All in one desktop:- Intel Core i5 ,Memory 8 GB ,Hard Disk Drive 1 TB or higher SATA Hard Drive) with data analysis software
- 16. The system should have minimum 2 years onsite comprehensive warranty from the date of installation.

### 5. NANO- SPECTROPHOTOMETER

- 5. 1. Wavelength Range: 190-850 nm or better
  - 2. Sample Size: 1 μL
  - 3. Path length: 0.03 to 1 nm
  - 4. Light Source: Xenon flash lamp
  - 5. Detector Type: 2048-element CMOS linear image sensor
  - 6. Wavelength Accuracy: +/- 1 nm

Spectral Resolution: <1.8 nm (FWHM @Hg 254 nm) Absorbance Accuracy: ± 3% (at 0.97 absorbance at 302 nm) 9. Absorbance Range: Pedestal-0-550 A (10 mm equivalent) 10. Detection Limit: Pedestal: 2 ng/μL dsDNA, BSA (IgG): 0.06 (0.03) mg/mL11. Maximum Concentration: 27,500 ng/µL (dsDNA) 12. Measurement Time: < 8 seconds 13. Touch Screen: >6 inch 1280 × 800 high-definition colour display, android based Quad Core ARM Cortex A-9 Processor, Multipoint capacitive touch. Gesture Recognition: Single point, single point hold, swipe and pinch. 14. Connectivity: Three USB-A ports, Ethernet, Bluetooth and Wi-Fi 15. Internal Storage: 32 GB flash Memory 16. Software: Software should have feature to identify the contaminants like protein and phenols in samples and reports corrected analyte concentration. System must have image analyser to detect bubbles and other anomalies in the sample column. Software should provide instant feedback about sample quality with on-demand support technical for guided troubleshooting. 17. Application Support: Nucleic Acid A260. A260/A280, A260/A230 and Labelled Nucleic Acids: Protein A280 and A205, Protein Pierce 660, Protein Bradford, Protein BCA, Protein Lowry, Labelled Proteins, OD600, Kinetics, UV-Vis, and Custom Methods. 18. The system should have minimum 2 years onsite comprehensive warranty from the date of installation. 6. GEL DOCUMENTATION SYSTEM 6. The system should have Small footprint to conserve benchtop space. The system should come with a UV light base 312 nm and is capable of visualizing both DNA and RNA gels It should have option for the use of safe blue-light trans- illumination without the risks of UV light trans- illumination. 4. Provision for Sensors to permit illumination only when the Imager Camera Hood is properly positioned over the Light Base unit. 5. It should be Compatible with a wide range of fluorescent and visible dyes (e.g. Qdot®, SYBR Safe®, ethidium bromide). Compatible with different gel formats including precast gels (e.g. E-Gel® Agarose Gels, NuPAGE® Novex Bis-Tris Gels) and pour-it-yourself gels (agarose, or polyacrylamide). 7. It should perform Real-time sample imaging allowing detailed sample viewing. It should eliminate the need for film or processing chemicals. Electrical Requirements: 100-240 V, 50/60Hz, 0.6A

10. Temperature: Ambient ± SoC to 40° C  11. Viewing surface dimensions should be: 12 cm × 15 cm  12. It should do direct camera to PC image transfer.  13. Lens with F/1.4, with broad range amber filter  14. High resolution 12 bit CCD Camera · ≤ 1.3 megapiseds with dynamic 56 DB  15. System should come with desktop (All in one desktop: Intel Core is. Memory 8 GB, Hard Disk Drive 1 TB or higher SATA Hard Drive) with data analysis software  16. The system should have minimum 2 years onsite comprehensive warranty from the date of installation.  7. WATER PURIFICATION SYSTEM  7. I. System should be quoted along the external Pretreatment and External RO to handle the silica free applications.  2. System should be standalone single stage system-produce Findotoxin and bacteria free ultrapure water Type 1 and Type 2 directly from potable water supply.  3. System should be capable of providing ASIM Type 1 (18.2 Mega ohm resistivity) Water and have the UF cartridge to cater Biological applications  4. System should be capable of providing ASIM Type II (1-10 Mega ohm resistivity) Water from potable tap water  5. System has feed water acceptance level of Conductivity upto 1500 µ/Sem or more, Fouling Index (SDI) > 3 and Total Chlorine less than 0.1 ppm or more  6. System should have a pre-treatment kit with 1µm filter. Harness Subbliller and Carbon  7. System should have RO Flow rate 31.tr/hour or more  8. Type I water flow rate should be equal or more than II.tr/filiate  9. Reverse Osmosis module is made up of thin film composite polyamide RO membrane with rejection rate of 94 - 99%  10. System should have water specific Purification pack before UV lamp consisting of mixed bed ion exchange resin' micro filter / activated carbon to ensure better purification and banger life of the cartridges.  11. UF should be inbuilt in system come with the life of 2 years to avoid any recurring cost.  12. System should have water specific Purification pack before UV lamp consisting of mixed bed ion exchange resin' micro filter / activated	11. Viewing surface dimensions should be: 12 cm × 15 cm  12. It should do direct earners to PC image transfer.  13. Lens with Pt/14, with broad range amber filter  14. High resolution 12 bit CCD Camera - ≤ 1.3 megapixels with dynamic 56 DB  15. System should Come with desktop (All in one desktop: Intel Core is Memory 8 GB. Hard Disk Drive I TB or higher SATA Hard Drively with data analysis software  16. The system should have minimum 2 years onsite comprehensive warranty from the date of installation.  7. WATER PURIFICATION SYSTEM  7. I. System should be quoted along the external Pretreatment and External RO to handle the silica free applications.  2. System should be standalone single stage system-produce Endotoxin and bacteria free ultrapure water Type 1 and Type 2 directly from potable water supply.  3. System should be capable of providing ASTM Type 1 (182 Mega ohm resistivity) Water and have the UF cartridge to cater Biological applications  4. System should be capable of providing ASTM Type II (1-10 Mega ohm resistivity) Water from potable tap water  5. System has feed water acceptance level of Conductivity upto 1500 μS/cm or more. Fouling, Index (SDI) - 3 and Total Chlorine less than 0.1 ppm or more  6. System should have a pre-treatment kit with 1μm filter, Harness Stabilizer and Carbon  7. System should have a pre-treatment with with 1μm filter, Harness Stabilizer and Carbon  7. System should have RO Flow rate 31 tr/hour or more  8. Type I water flow rate should be equal or more than 11 tr/Minute  9. Reverse Cosmosis module is made up of thin film composite polyamide RO membrane with rejection rate of 94 - 99%  10. System should have water specific Purification pack before UV lamp consisting of mixed bed ion exchange resin/micro filter / activated carbon to ensure whether purification and longer life of the cartridges.  11. UF should be inbuilt in system come with the life of 2 years to avoid any recurring cost.  12. System should have due to the content of microorganisms and their metabolites to ens	10. Temperature: Ambient ± 5oC to 40° C	(5N3)
<ol> <li>1. System should be quoted along the external Pretreatment and External RO to handle the silica free applications.</li> <li>2. System should be standalone single stage system-produce Endotoxin and bacteria free ultrapure water Type 1 and Type 2 directly from potable water supply.</li> <li>3. System should be capable of providing ASTM Type I (18.2 Mega ohm resistivity) Water and have the UF cartridge to cater Biological applications</li> <li>4. System should be capable of providing ASTM Type II (1-10 Mega ohm resistivity) Water from potable tap water</li> <li>5. System has feed water acceptance level of Conductivity upto 1500 μS/cm or more, Fouling Index (SDI) &gt; 3 and Total Chlorine less than 0.1 ppm or more</li> <li>6. System should have a pre-treatment kit with 1μm filter, Harness Stabilizer and Carbon</li> <li>7. System should have RO Flow rate 31.tr/hour or more</li> <li>8. Type I water flow rate should be equal or more than 11.tr/Minute</li> <li>9. Reverse Osmosis module is made up of thin film composite polyamide RO membrane with rejection rate of 94 - 99%</li> <li>10. System should have water specific Purification pack before UV lamp consisting of mixed bed ion exchange resin/ micro filter / activated carbon to ensure better purification and longer life of the cartridges.</li> <li>11. UF should be inbuilt in system come with the life of 2 years to avoid any recurring cost.</li> <li>12. System should have dual wavelength 185/254 nm for UV-oxidation for reducing the content of microorganisms and their metabolites to ensure the quality of Type I water</li> <li>13. System should have inbuilt reservoir 6 ltr or more in volume. Water is recirculated through High Purity Cartridge to maintain purity of Type 2 water in tank all the time.</li> </ol>	7. 1. System should be quoted along the external Pretreatment and External RO to handle the silica free applications.  2. System should be standalone single stage system-produce Endotoxin and bacteria free ultrapure water Type 1 and Type 2 directly from potable water supply.  3. System should be capable of providing ASTM Type 1 (18.2 Mega ohm resistivity ) Water and have the UF cartridge to cater Biological applications  4. System should be capable of providing ASTM Type II (1-10 Mega ohm resistivity ) Water from potable tap water  5. System has feed water acceptance level of Conductivity upto 1500 µS/cm or more, Fouling Index ( SDI) > 3 and Total Chlorine less than 0.1 ppm or more  6. System should have a pre-treatment kit with 1µm filter, Harness Stabilizer and Carbon  7. System should have RO Flow rate 31.tr/hour or more  8. Type I water flow rate should be equal or more than 11.tr/Minute  9. Reverse Osmosis module is made up of thin film composite polyamide RO membrane with rejection rate of 94 - 99%.  10. System should have water specific Purification pack before UV lamp consisting of mixed bed ion exchange resin' micro filter / activated carbon to ensure better purification and longer life of the cartridges.  11. UF should be inbuilt in system come with the life of 2 years to avoid any recurring cost.  12. System should have dual wavelength 185/254 nm for UV-oxidation for reducing the content of microorganisms and their metabolites to ensure the quality of Type 1 water  13. System should have inbuilt reservoir 6 ltr or more in volume. Water is recirculated through High Purity Cartridge to maintain purity of Type 2 water in tank all the time.	11. Viewing surface dimensions should be: 12 cccm  12. It should do direct camera to PC image transfells. Lens with F/1.4, with broad range amber filter. High resolution 12 bit CCD Camera megapixels with dynamic 56 DB.  15. System should come with desktop (All desktop:- Intel Core is ,Memory 8 GB ,Hard Drive 1 TB or higher SATA Hard Drive) with analysis software. The system should have minimum 2 years comprehensive warranty from the data.	Fer. er ≤ 1.3 in one rd Disk ith data s onsite
treatment and External RO to handle the silica free applications.  2. System should be standalone single stage system-produce Endotoxin and bacteria free ultrapure water Type 1 and Type 2 directly from potable water supply.  3. System should be capable of providing ASTM Type 1 (18.2 Mega ohm resistivity) Water and have the UF cartridge to cater Biological applications  4. System should be capable of providing ASTM Type II (1-10 Mega ohm resistivity) Water from potable tap water  5. System has feed water acceptance level of Conductivity upto 1500 µS/cm or more, Fouling Index (SDI) > 3 and Total Chlorine less than 0.1 ppm or more  6. System should have a pre-treatment kit with 1µm filter, Harness Stabilizer and Carbon  7. System should have RO Flow rate 31.tr/hour or more  8. Type 1 water flow rate should be equal or more than 11.tr/Minute  9. Reverse Osmosis module is made up of thin film composite polyamide RO membrane with rejection rate of 94 - 99%  10. System should have water specific Purification pack before UV lamp consisting of mixed bed ion exchange resin/ micro filter / activated carbon to ensure better purification and longer life of the cartridges.  11. UF should be inbuilt in system come with the life of 2 years to avoid any recurring cost.  12. System should have under subspective to ensure the quality of Type 1 water  13. System should have inbuilt reservoir 6 ltr or more in volume. Water is recirculated through High Purity Cartridge to maintain purity of Type 2 water in tank all the time.	treatment and External RO to handle the silica free applications.  2. System should be standalone single stage system-produce Endotoxin and bacteria free ultrapure water Type 1 and Type 2 directly from potable water supply.  3. System should be capable of providing ASTM Type 1 (18.2 Mega ohm resistivity ) Water and have the UF cartridge to cater Biological applications  4. System should be capable of providing ASTM Type II (1-10 Mega ohm resistivity ) Water from potable tap water  5. System has feed water acceptance level of Conductivity upto 1500 µS/cm or more, Fouling Index ( SDI) > 3 and Total Chlorine less than 0.1 ppm or more  6. System should have a pre-treatment kit with 1µm filter, Harness Stabilizer and Carbon  7. System should have RO Flow rate 3Ltr/hour or more  8. Type I water flow rate should be equal or more than 1Ltr/Minute  9. Reverse Osmosis module is made up of thin film composite polyamide RO membrane with rejection rate of 94 - 99%.  10. System should have water specific Purification pack before UV lamp consisting of mixed bed ion exchange resin' micro filter / activated carbon to ensure better purification and longer life of the cartridges.  11. UF should be inbuilt in system come with the life of 2 years to avoid any recurring cost.  12. System should have dual wavelength 185/254 nm for UV-oxidation for reducing the content of microorganisms and their metabolites to ensure the quality of Type 1 water  13. System should have inbuilt reservoir 6 ltr or more in volume. Water is recirculated through High Purity Cartridge to maintain purity of Type 2 water in tank all the time.	7. WATER PURIFICAT	IION SYSTEM
	The latest street of the write imported 110-	treatment and External RO to handle the sili applications.  2. System should be standalone single stage sproduce Endotoxin and bacteria free ultrapun Type 1 and Type 2 directly from potable supply.  3. System should be capable of providing ASTM 1 (18.2 Mega ohm resistivity ) Water and he UF cartridge to cater Biological applications.  4. System should be capable of providing ASTM II (1-10 Mega ohm resistivity ) Water from tap water.  5. System has feed water acceptance less Conductivity upto 1500 μS/cm or more, I Index (SDI) > 3 and Total Chlorine less the ppm or more.  6. System should have a pre-treatment kit wit filter, Harness Stabilizer and Carbon.  7. System should have RO Flow rate 3Ltr/h more.  8. Type 1 water flow rate should be equal or mone 1Ltr/Minute.  9. Reverse Osmosis module is made up of the composite polyamide RO membrane with restate of 94 - 99%.  10. System should have water specific Purification before UV lamp consisting of mixed be exchange resin/micro filter / activated carensure better purification and longer life cartridges.  11. UF should be inbuilt in system come with the 2 years to avoid any recurring cost.  12. System should have dual wavelength 185/2 for UV-oxidation for reducing the continuicroorganisms and their metabolites to ensiquality of Type 1 water.  13. System should have inbuilt reservoir 6 ltr or revolume. Water is recirculated through High Cartridge to maintain purity of Type 2 water all the time.	ica free system- e water  M Type ave the  M Type potable  vel of Fouling han 0.1  th 1µm  nour or  ore than  in film ejection  on pack ed ion rbon to of the  e life of  254 nm ent of ure the  more in Purity in tank

entropasserate (* 1917) en			
(FRES			
		Spirit Back and	
	treatment water as to take the excessive care.		Y
	15. System be compatible for onsite IQ/OQ(Onsite	- A	
	Validation) 16. Production rate of Purified Water @ 3 ltrs/hr or	de ker	
	more		
	17. System should be quoted with one set of	Thomas I al	
	Consumables including RO.	e de la companya de l	
	18. Technical specifications	otest side of	
	Ultra-Pure (Type I) water	nieg oso	
	Resistivity: 18.2 Mega Ohms.cm @ 25 Degree C.	ondran Street	
	• TOC: < 5 ppb		
	• Bacteria: < 0.01 cfu/ml or better		
	• Particulates ( 0.22 micron ): < 1 /ml	and the second of the second	
	• RNAse: < 0.003 ng/ml or better		
	• DNAse: < 0.4 pg/ml or better	Att was a second second	
	• Endotoxin: 0.001 EU/ml or better	Date of the second	
	• Flow rate : ≥ 1 Litre/Minute.		
	Ultra-Pure (Type II) water		
	• Resistivity: > 1 Mega Ohms.cm @ 25 Degree C.		
	• TOC: < 30 ppb		
	• Flow rate: >3Ltr/hour	4	
	19. The system should have minimum 2 years onsite		
	comprehensive warranty from the date of installation.		
	8. CLEAN BENCH SYSTEMS FOR BIOSAFETY	Y CABINETS	
	8. 1. Ergonomic design for versatile usage, eases of use,		
	plug & play system.		
	2. Designed so as to meet the requirements of US	add the Sala	
	Federal Standard 209 B (BS 5295) providing particle	Caller of Pick	
	free air to meet class 100 conditions		
	3. International Standards - UK Complied	A THE PART OF STREET	
	Certifications – ISO 9001:2015, CE. GMP.	100	
	4. Company is under Make in India & MSME Certified		
	with International standard, Certified model with		
	duly mentioned brand name Internal IQ/OQ/PQ Certification.		
	5. Re circulates 70% of HEPA filtered air and Rest		
	30% exhausted through a HEPA filter and	so all the Pills	
	discharged to the lab or exhausted through an		
	optional exhaust system		
	6. HEPA-filtered exhaust air in Type A2 cabinet May	Si Ballette - La	
	be re circulated into the room or exhausted to the		
	outdoors through a canopy exhaust connection.	la seguina de la companya de la comp	
	7. HEPA-filtered down-flow air is a portion of mixed		
	down-flow and inflow air from a common plenum.		
	8. Negative Pressure air surrounding all Biological	CONTRACTOR OF THE STATE OF THE	
	9. Negative pressure surrounds the work area with	The Holes of the San	
	double wall plenums for protection	200 (177)	
	10. High velocity air forced through HEPA filters,		
( ) ·	Filtered air is thrown in the chamber with a high		
	velocity which in turn disperse particulate matter on	and Than a grant	
Address of the Armer	all surface, The lower portion of the Air showers		
	suck the contaminated air and allow it to pass to		
	blower supply plenum, This process is a continuous	i	
	process in which air is continuously filtered and		
	recirculated inside the chamber without anv Page 20 of 57		
	rage ZU OI 5/		AND THE RESERVE TO TH

exchange with the external environment

- 11. Exhaust air pass through HEPA Filter & Virus burn unit Exhaust ducting with L- Bent PVC pipe supplied with the machine.
- Material of Construction: Outer Body- CRCA Sheet epoxy Powder coated antibacterial& Antirust effect, 22 gauge OR Stainless Steel-304 PVC /Matt grit/ Sattin finish, 22 GAUGE
- 13. Work table top: SS-304, PVC /Matt grit/ Sattin finish, 22 GAUGE. Single piece without Any internal joint or welding with below spillage collection zone. The work table can be removed for cleaning of the spillage. Front & rear air grille at the working chamber.
- 14. Front door Counter balanced weight with 5 mm toughened/tempered glass UV —protected to protect customer from UV Exposure complete transparent along with base structure to hold the cabinet & ease of access.
- 15. Air flow type: Vertical Air flow from the top.
- 16. Air Flow Velocity: 90 FPM ±20%, Inflow Velocity: 0.53 m/s, Down flow Velocity: 0.33 m/s
- 17. Aerodynamically designed front airflow intake grid eliminates potential turbulence an contamination
- 18. Statically balanced motor blower Assembly (Heavy Duty), 1440 rpm, ¼ hp. Noise of the blower is less than 55 dBA & Very low vibration
- 19. Filtration Assembly: Room air is drawn from the top of the cabinet through a HEPA-Filter, then the air pass through HEPA Filter and spread evenly in the working area providing a constant a stream of clean air flow within the work area. Also the exhaust air goes though HEPA filter to maintain a complete safe arena. HEPA Filter is Mini pleat type, made from water resistant, fire retardant, imported microfine glass fibre media; conforms to EU 14 Grade, with an efficiency rating better than 99.999% for 0.3 μ. These filters are designed to accommodate higher air flow volume.
- 20. Perforated diffuser screen /shield mesh guard protect Filters from damage.
- 21. Front angular 10 degree slope helps reduce fatigue of user.
- 22. Pressure manometer to track filter pressure & air/gas cock inside the working area
- 23. Easy removable back/front panel for easy access to electrical fittings and easy removable filter placement for ease of access during service.
- 24. Wheels: -Mounted on heavy tubular stand with lockable castors with foot rest.
- 25. Electricals fittings & Fixtures: -
  - Microprocessor based PID Controller UV ONOFF, UV-Timer, Blower 3 speed control – High, Low, Medium, and Display of UV Age.
  - Fluorescent light 20 watt, >800 lux, with chokes for lighting UV Light – 15 watt, Philips make
  - Power supply -220-230 V, 50-60 Hz, 5/15 amps

	power cord.	an astronomy	
	Internal 5 amp electrical connection for usage of	(2.49.1257	
	several machines in clean air		
	26. The system should have minimum 2 years onsite	Reimol Mu	
	comprehensive warranty from the date of	工作展 医双视电影	
	installation.		
	9. CO₂ INCUBATOR	Company of the Compan	
9.	1. Capacity: 6.5 cu. ft.		
	2. Chamber Material Polished Stainless Steel	a transfer of	
	Dimensions (D x W x H) Interior 20 x 21.3 x 26.8	tally grow is 12	
i dh	in. (50.8 x 54.1 x 68.1 cm)	Single Si	
	3. Dimensions (L x W x H) 25 x 26.3 x 39.5 in. (63.5 x	271 (BX0) 375(6)	
	66.8 x 100.3 cm)	CHANGES OF THE	
1	4. Temperature Range (Metric) Ambient +5°C to 50°C	La Portion Control	
	Relative Humidity	nythol and the	
	5. CO2 Sensor Technology IR Sensor Type	5 (1900) 1907 - 201 - 2   2   1   1   1   1   1   1   1   1	
SAU	6. CO2 Incubator Oxygen Control None	of the state of th	
	7. CO2 Concentration Range 0 to 20%	TOTAL SEE SEE SEE	
	8. Certifications/Compliance UL, cUL, CE Data	26 2 (d) (12 d) (12 d) (12 d)	
	Outputs Optional 4-20mA  9. The system should have minimum 2 years onsite		
	9. The system should have minimum 2 years onsite comprehensive warranty from the date of		
	installation.		
		ur setti a este	
	10. MICROTOME	or consultation	
10.	1. Designed for effortless manual sectioning via a		
	counter-balanced, exceptionally smooth-running	Pent Hat School	
	hand wheel.	THE PERSON NAMED IN THE PE	
	The second secon	4 650 M	
	2. Instrument with X/Y specimen orientation	7 - 70	
	3. Fast exchange system for specimen clamps, both	11.4 (2588) Selete	
	Universal Cassette Clamp & Standard Clamp		
	4. Personalized User Selectable Coarse Feed wheel	alle saw in carte.	
	turn direction, either Clockwise or Anti-Clockwise	16 5 5 5 E C 1973 - 195 - 1	
	to suit user's preference	aronagen i i valid	
	5. Retraction on/off function	appeared for the second	
	6. Two mechanical trim steps at 10 μm, 50 μm: (50	The state of the s	
	μm coarse, 10 μm fine)	en or erefulla	
	7. Blade holder for disposable blades must be for	A TO BE SEE	
	both High & Low Profile with standard specimen	Bridgey and E. P.S.	
	clamp.		
	8. The object head with +/-8° X/Y orientation		
	equipped with a fast specimen clamp exchange	Control of the second	
	system for improved workflow.	UVSTP44U. Pr. C. Pre	
	9. Storage space on top of the instrument housing		
	provide room for sectioning tools and accessories.		
	10. The instrument feature a low-maintenance	Mariana di A	
	micrometer feed system with backlash		
	11. Maintenance-free vertical cross-roller guides and	mar part of the	
9, 44-6	horizontal specimen feed via precision cylinder		
	guide system.		
	12. Distortion-resistant base plate ensure optimum		
2 - 28	overall stability.		

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- 13. The vertical stroke of 59 mm
- 14. Horizontal specimen travel range of 25 mm
- 15. Allow to section specimens up to a size of 50 mm x40 mm x 40 mm.
- 16. Ergonomically designed hand wheel grip.
- Hand wheel lockable in any position via brake lever attached to base plate
- 18. Lockable hand wheel in upper position via hand wheel grip.
- 19. Location conditions:
  - Operating temperature range 10°C to 35°C.
  - Temperature range during storage 5°C to 55°C.
  - Relative humidity max. 80%, non-condensing.
  - Storage humidity < 80%.</li>
- 20. Technical information- Section thickness setting range  $0.5-60~\mu m$ .
- 21. Section thickness selection from 0.5–2  $\mu m$  in 0.5  $\mu m$ -steps.
  - from 2–10 μm in 1 μm-steps.
  - from 10-20 μm in 2 μm-steps.
  - from 20-60 μm in 5 μm-steps.
  - Total horizontal specimen feed 25 mm.
- 22. Vertical specimen stroke 59 mm
- 23. Specimen retraction ON/OFF
- 24. Specimen orientation: Horizontal 8° & Vertical 8° with Rotation ± 90°
- 25. Dimensions and weight should be lean & compact—must occupy lean work space in lab
- 26. Must include Sturdy Waste Tray
- 27. Must be Imported Model with both European CE & USFDA Certified
- 28. The system should have minimum 2 years onsite comprehensive warranty from the date of installation.

### 11. PARAFFIN EMBEDDING SYSTEM

### 11. I. Hot Plate:

- 1. Microprocessor controlled two-piece tissue embedding system consisting of heated paraffin station and separate cold plate.
- The paraffin flow is activated by means of a heightadjustable, pivotable clip - activated either manually by pushing or via a foot switch with controllable flow rate.
- 3. Working start time and end time settings, Weekly working days setting with real time setting.
- 4. Should have symmetrical and unobstructed workspace: The 100% symmetrical and unobstructed workspace with equal left & right working spaces from the dispense nozzle in between, reduces

distractions and allows to keep your cassettes, molds and other accessories warm and at hand for a smoother workflow.

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- 5. Should have Easy-to-open spacious trays for efficient access to cassettes and molds: Easy-to-open trays allow for efficient access to cassettes and molds, resulting in smoothly run batches. Tray lids should be half opened to keep the temperature stable.
- 6. Should have bright white LED for contrast and visibility of the most transparent samples- Easily Controllable by the key on LCD control panel: The bright white LED improves contrast and visibility of the most transparent samples.
- 7. Provide the error message for operation condition monitoring.
- 8. Large heated working surface and integrated mold tray and cassette bath with temperature adjustment from 50 to 75°C in 5°increments.
- Cassette bath and mold tray should be interchangeable to accommodate changes in embedding work flow.
- 10. Should have Easy to clean metal frame and silicon coated wristpads. The ergonomic wrist pads increase hand stability and precision, even when embedding the most difficult biopsies.
- 11. Programmable for weekly timer, work days, work starting time, work end time, real time and day of week for automatic switch on and off of the instrument.
- 12. Operating temperatures: 50 °C to 75 °C, adjustable in 1 °C increments.
- 13. Should have RAPID Heating: to boost heating if wax in needed to refill in between instrument run, then rapid heating allows wax granules to melt within 15 minutes.
- 14. Easy to clean metal frame and silicon coated wristpads. The sturdy design of the special scraper helps clean all grooves and crevices.
- 15. Removable tray must hold: approx. 150 cassettes
- 16. Paraffin tank: Max. 4 L
- 17. Rectangular shaped Peltier cooling unit in front of the nozzle—for immediate freezing of the molten paraffin.
- 18. Display: 5.7 inch capacitive LCD touch screen
- 19. Two Heated removable waste tray & Heated removable forceps 6 nos. holder easily accessible from either side.
- 20. Large peltier element cold spot to assist tissue orientation.
- 21. Power supply: 110-120 V AC, 220-240 V AC,

50/60Hz, Power consumption: 1000 VA max II. Cold Plate 22. Operating temperature: -6 °C (self-regulating) to hold up to 70-80 standard cassettes. Temperature should strictly MUST NOT go BELOW -6 °C to avoid tissues getting hard & brittle where chances of tissue destruction & tissue breakage are high 23. Min. guaranteed workload capacity: 65 blocks solidified in 30 minutes 24. Adjustable work surface height for optimum ergonomics. 25. Provision for Self-Regulation so that no need to turn down the temperature in summer or worry about too fast cooling in winter. 26. Both HOT & COLD Instruments Should have CE and USFDA certificate 27. The system should have minimum 2 years onsite comprehensive warranty from the date of installation. 12. AUTOMATIC TISSUE PROCESSOR Benchtop unit, movable on rollers. 2. Carousel-type construction with 12 processing stations: 10 reagent stations, 2 wax baths. 3. One basket operation/standard tissue basket without vacuum/without fume control 4. Connection for optional third wax bath. 5. Glass beakers, solvent-resistant and dishwasher-proof, with beaker carriers and minimum/maximum filling marks. 6. Aluminium standard tissue basket. Membrane keyboard and LCD screen. Locking key to prevent inadvertent changing of programmed parameters. Indication of station and program parameters such as number of tissue baskets, remaining infiltration time, real time, start time(delayed start time), overall run time and end of run time. Audible alarms, error messages and warning codes for "paraffin solid" 8. Manual and automatic mode of operation. 9. Infiltration time of up to 99 h 59 min, individually programmable for each station. 10. Immediate start and delay start up to 9 days.

12.

11. Permanent tissue basket movement (can be switched ON/OFF) at 3 second intervals in both manual and automatic operation.

12. 1 minute drain time between stations for reduced

13. Advanced safety concept. Automatic immersion of tissue basket in a station in case of mains power failure.

14. Power failure indication including station number and



- 12. 5V USB port at the back of the stand to connect a power bank or charge mobile device
- 13. ECO mode, automatically go into a sleep mode after 30min inactivity
- 14. Filters: Colour filter set blue, green and yellow
- 15. With Dust Cover & Anti-fungus treated optics (Must provide anti-fungus certification from manufacturer).
- 16. Camera: Colour camera 8 Megapixels or better, pixel count - 3840\*2160, exposure range of 0.06 ms to 1 s with a frame rate of 30 fps with a passive cooling system. And should have interfaces -HDMI, USB 3.0 Type C, Ethernet, Micro-D Full 4k Resolution in 30 fps. The camera shall provide an on-screen display (OSD) that allows to control the camera without an extra controller/computer or software. In the OSD, camera parameters and the image file name shall be selected and adjusted via mouse and keyboard. Images shall be stored conveniently on a USB flash drive. The camera shall support both, the operation in stand-alone mode and in combination with a computer and software. The camera shall provide multiple setup possibilities to use it in a wireless mode.
- Certification: System should be ISO and CE certified. Both microscope and camera should be from same manufacturer.
- 18. System should come with desktop (All in one desktop:- Intel Core i5, Memory 8 GB, Hard Disk Drive 1 TB or higher SATA Hard Drive) with data analysis software
- 19. The system should have minimum 2 years onsite comprehensive warranty from the date of installation.

### 14. INVERTED MICROSCOPE

- 14. 1. Modular Illumination (HAL and LED) White LED.
  Should also have provision to interchange LED with HAL illumination. Halogen illumination should also be included.
  - 2. Contrast techniques Bright field, phase contrast. Upgradeable to Fluorescence
  - 3. Stage details Dimensions: 200 X 239 mm
  - 4. Stage focus Coarse adjustment: 45 mm/rev Fine adjustment: 0.5 mm/rev Stage lift: 15 mm Stage adjustment: Right side
  - 5. Nosepiece turret Nosepiece turret with 4 positions
  - Objectives and objective indicators Objective indicators for fast identification of magnification Recommended Objectives Plan-ACHROMAT 4X/0.10; 10X/0.25 LD Plan-ACHROMAT: 40X/0.50 Ph.
  - Condensers Long distance (LD) condenser with NA
     and working distance (WD) = 72 mm. Position for phase sliders to be available with the condenser.
  - 8. Binocular tube details Binocular tube with phototube. Field of View: 20 Inter-pupillary

Distance: adjustable from 48 to 75 mm Viewing Angle: 45° Viewing Height: 350 to 390 mm Fixed Split: 50% visible, 50% documentation 9. Eye pieces 10X/ FOV 20 10. Accessories Universal mounting frame -for microwell plates, flasks, Petri dishes 11. Camera Colour camera 8 Megapixels or better, pixel count - 3840\*2160, exposure range of 0.06 ms to 1 s with a frame rate of 30 fps with a passive cooling system. And should have interfaces -HDMI, USB 3.0 Type C, Ethernet, Micro-D Full 4k Resolution in 30 fps. The camera shall provide an on-screen display (OSD), available in at least 3 languages, that allows to control the camera without an extra controller/computer or software. In the OSD, camera parameters and the image file name shall be selected and adjusted via mouse and keyboard. Images shall be stored conveniently on a USB flash drive. The camera shall support both, the operation in stand-alone mode and in combination with a computer and software. The camera shall provide multiple setup possibilities to use it in a wireless mode. 12. Microscope, camera and software should be from same manufacturer 13. The system should have minimum 2 years onsite comprehensive warranty from the date installation. 15. BIOSAFETY CABINET LEVEL - II The Bio safety cabinet should be Type A2 in which 70% Air should be recirculated and 30% of the air should be exhausted The Bio Safety Cabinet must include two DC motors. The motor must automatically adjust the airflow speed without the use of a damper to continuous safe working conditions, even without maintenance adjustments. In order to preserve safety to the user and the environment, the exhaust blower on the cabinet must continue operating when the supply blower stops working. If the exhaust blower should fail, the supply filter will also be turned off. In order to ensure consistent and reliable down flow velocity across the supply HEPA filter over the life of the cabinet, the cabinet must use a pressure sensor (rather than anemometer) to detect pressure drop across the supply filter, rather than in just one point across the down flow. The pressure sensor must be encased in order to protect the sensor from temperature, humidity and other environmental phenomena that can impact the sensor's performance. The microprocessor must display the inflow and down flow air velocities in real-time on an LED

15.

display to ensure the user knows whether or not the cabinet is working under safe operating conditions. The front window must be a 10" sash opening and be made of laminated safety glass to ensure containment

(238)

- of potentially hazardous samples in the case of accidental glass breakage.
- 8. All interior and exterior parts must be painted or smooth to ensure no risk of cuts to users or maintenance personnel.
- 9. The cabinet noise level must be less than 63 dB(A) for a 4 foot cabinet as measured in a sound proof room 12 inches in front of the cabinet and 15 inches above the work surface.
- 10. The Biosafety Cabinet should have microprocessor controller and same must be located on a slanted front panel so it is easy to see and reach from a seated working position in front of the cabinet.
- 11. The interior of the front window must be accessible for cleaning without requiring the user remove or support the window.
- 12. The cabinet must automatically reduce fan/blower motor speed to 30% when the front window sash is in closed position to ensure reduced energy consumption when the cabinet is not is use.
- 13. In order to provide maximum effectiveness, efficiency and safety to laboratory Personnel, UV light must be programmable to allow for specific exposure times from 0 to 24 hours. The automatic shut off feature on the UV light saves money on replacement of the bulbs.
- 14. The Cabinet should have provision to fit taps for Vacuum, Water and Non-combustible Gas.
- 15. The Bio safety Cabinet should be NSF certified with listing on NSF website.
- 16. Cabinet should have individual sticker of NSF Certification along CE certificate.
- 17. The Bio safety cabinet should incorporate HEPA filter of the class H 14 EN 1822 or better and having minimum efficiency of 99.995% at 0.3 μm particle size
- 18. Approximate Dimension: Exterior 1500 H x 1300 W x 800 D; Interior 800 H x 1200 W x 500 D.
- 19. Ventilation System Exhaust and Inflow air volume approx 300-350 CFM
- 20. Heat Emissions at 25°C should be approx 0.2 KW or lesser.
- 21. The BSC must incorporate an LED Indicator to indicate filter loading and should provide visual and audible alarm to indicate excessive HEPA filters loading which can result in unsafe airflows deviation from the NSF recommended inflow and down flows air velocity values measured in meters per second or foot per minute.
- 22. The cabinet should be provided with fixed / adjustable Height Stand, UV Light and one set of detachable arms rest and electrical outlet.
- 23. The Drain Pan of the BSC should be made of Stainless Steel. The drain pan should not be painted or power coated.
- 24. The Bio safety cabinet should have dual side wall with negatively pressurized interstitial space. Bio



	Safety Cabinet with single glass side walls should not be quoted.  25. The system should have minimum 2 years onsite comprehensive warranty from the date of installation.		
	16. ELISA READER		
16.	<ol> <li>Read-out Range: 96 Well Plate; 384 Well Plate</li> <li>Measurement Technology: Absorbance</li> <li>Plate Type: 96 and 384 well plates</li> <li>Software Type: Internal software or PC control with Software</li> <li>Wavelength Selection: Filters</li> <li>Wavelength Range: 340–850 nm</li> </ol>		
V - 1	<ol> <li>Photometric Linearity: 0-3 Abs, ± 2%, 96-well plate, 450 nm</li> <li>Accuracy (Photometric): ± 1% (0-3 Abs) or ±0.003 Abs, 450 nm</li> <li>Precision: CV ±0.2% (0.3-3 Abs), 450 nm</li> <li>Incubator Temperature: From ambient + 4°C up to</li> </ol>		
	50°C  11. Shaking: Linear shaking  12. Measurement Speed: 7 s, 96-well plate (fast mode);  13 s, 384-well plate (fast mode)  13. USB Connections: USB for computer connections	term (F. de Apuléo )  Les esse roya (es esse )  Les esse roya (es es e	
	data export and external printer  14. Application: ELISA, enzyme activity, protein quantification, endotoxin, cytotoxicity and proliferation assays, enzyme assays and growth curves		
	15. The system should have minimum 2 years onsite comprehensive warranty from the date of installation.		
	17. UV/VS SPECTROPHOTOME	SIEK	
17.	<ol> <li>Control: System should have High Definition 7" touch screen control</li> <li>Detector Type: Dual Silicon Photodiodes</li> <li>Power: External AC to DC converter. Voltage and Frequency (Hz) selected automatically, 100–240 volts, 50–60 Hz.</li> <li>Lamp: Xenon Flash Lamp /or any equivalent lamp /</li> <li>Optical Design: Dual Beam or better</li> </ol>		
	<ol> <li>Spectral Bandwidth: 2 nm or better</li> <li>Wavelength Accuracy: ±0.5 nm or better</li> <li>Wavelength Data Interval: 0.2 nm, 0.5 nm, 1 nm, 2 nm, 5 nm or better</li> <li>Wavelength Range: 190 nm - 1100 nm or better</li> <li>Wavelength Repeatability: &lt; ±0.2 nm or better</li> </ol>		
	11. Photometric Range: -2A to +3.5A or better 12. Photometric Repeatability: ±0.001A at 1A or better 13. Stray Light: < 1.0%T 198 nm (KCl) or better, <0.05%T at 220 nm (NaI) or better, <0.03%T at 340 nm (NaNO2) or better		
	14. Baseline Flatness: ±0.002A or better 15. Wavelength Scan Speed: Slow, medium and fast — minimum up to 1600 nm/min or better 16. Connections: Single USB supports flash memory		

20

	devices for method and data storage,				(23	a∤
	17. USB on side supports connection to a Windows <sup>TM</sup>					-
	computer running					
KSIOS S	18. The system should have minimum 2 years onsite	ON THE PARTY	Property of the party of the		range and an expe	211
	comprehensive warranty from the date of installation.					
1000	18. ULTRA CENTRIFUG	E		I*		
18.	1. Speed: 100,000 rpm RCF :> 750,000 x g					
	2. Maximum Capacity: 6 x 250 mL			E. F		
	3. Drive System: Imbalance tolerant direct drive; eye	shed 7's				
	balance to within 5 mm Control: Microprocessor					
	Control Panel: Touch screen colour LCD panel					
	4. Programmability: 1,000 programs with step-runs					
	Run Log Database: Up to 5,000 runs recorded in					
	onboard memory		期27年 到刊 的 37			
	5. Data Communication: USB: Host x 1, Device x 1 /					
	LAN x 1 Accel/Decel Profiles: 10/11 (10 and		Patrick Rose	PI-A		
	coasting) Speed Range: 1,000 rpm to max. Speed in					
	100 rpm increments Speed Control Accuracy: ±10		100			
	rpm (1,000 rpm – max. speed)					
	6. Timer: 1 min to 999 hours 59 min (with 1 min					
	increments) with HOLD function					
	7. Temperature Set Range: +2 to +40 °C Temperature			7192.7 1		
	Accuracy: ±0.5 °C					
	8. Ambient Temperature Range: +10 to +30 °C					
	Temperature					
	9. Control System: Solid-state thermoelectric module					
	refrigeration (CFC/HCFC/HFC-free) Vacuum					
	System: Oil-rotary vacuum pump with moisture					
	removal function and oil diffusion pump; vacuum					
	of 0.13 Pa Rotor tracking: Yes Step-by-step					
相切如	10. Operation screens: Yes Drive					
	11. Cooling: Air-cooled Functions- Automatic RCF;					
	ω2dt integrator; real time control; controlled user					
	access; rotor life management Dimensions (H x W					
	x D): 880 x 790 x 690 mm/ 34.6 x 31.1 x 27.2 in					
	Work Height of Top Deck: 863 mm/ 33.9 in					
	Weight: 390 kg/859.8 lb					
7	12. Heat Output: 1 kW or below					
	13. Noise: 51 dBA					
	14. Should have Self-locking rotor system provides					
	confidence that the rotor is automatically and					
	securely locked					
	15. Should have the facility to monitor instrument					
	status from across the lab with Stat Light, our multi-					
	colour, programmable >40cm long LED.					
	16. Should supports labware from microtubes to					
	250mL bottles providing applications flexibility.					
	17. Certification: CE and cCSAus.					
	18. The system should have minimum 2 years onsite					
	comprehensive warranty from the date of					
	installation.		100			

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Chapter - 7

### PRICE SCHEDULE FORM

Price Schedule for Goods Being Offered from India/abroad in INR
(Separate form to be used for each item offered)

Name of the Bidder/Tenderer:

Address of Bidder/Tenderer:

Tender No.:

Name of offered goods/items:

Make and Model of equipments/items:

Place:

Seal & Signature of Bidder

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	BIHAR ANIMAL SCIENCES UNIVERSITY			
15	NII No.			
	Group No.		* * * * * * * * * * * * * * * * * * * *	
	Quantity	5.		
	Name of Equipment/Items		The second second	
	Last date of online submission (Date and Time)	:-		
	Earnest Money (in Rs.)	3.		
No	m-Refundable and to be paid only through e-Payment mode i.e. Internet payment gatenay (Master or Visa Card/Internet Banking NEFF or RTGS	100	1180.00	
	FINANCIAL BII	D FOR	WAT	
	TO BE FILLED IN	BI. BII	DDER	
1	Name of the Bidder	1	The state of the s	
1	Address of the Bidder	1		
3	Name of Equipment / Resu as mentioned in Tender Document			
	Name & Model Na of offered goods items	5183		
5	F.O.R price unchains of all taxes and duties			
6	Total Sid price (Includes of all tages and dutter, CST) in Indust Currency, DIR			
•	Total Bid priving in word:			
Note-1: The cost of optional sleam shall be indicated separately, if any  Note  Note-2: Bilbar Aminal Science: University, Patna have DSIR Certificate (Reg. No.: TUA/RG-CDE (1283)/ 2020 Dated: 07.01.2021). So, price should be quoted considering this point.				

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## Annexure- I

### MANUFACTURER'S AUTHORISATION FORM

To,
The Director Procurement,
Bihar Animal Sciences University,
Patna-800014
Dear Sir,
Ref. Your Tender Inquiry No, dated,
We,
We further confirm that no supplier or firm or individual other than Messrs.  (name and address of the above agent) is authorised to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred tender inquiry for the above
manufactured by us.
We also hereby confirm that we would be responsible for the satisfactory execution of contract placed on the authorised agent.
We also confirm that the price quoted by our agent shall not exceed than that which we would have quoted directly.

### Note:-

12 5

- (i) This letter of authorisation should be on the letter head of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.
- (ii) Original letter may be sent.

### Annexure-II

# MODEL BANK GUARANTEE FORMAT FOR PERFORMANCE SECURITY

To,	
The Finance Comptroller,	
Bihar Animal Sciences University,	
Bihar Veterinary College Campus, Patna-14	
7	
WHEREAS (name and addr	
of the supplier) (heroinafter called "the supplier") has and addr	ess
of the supplier) (hereinafter called "the supplier") has undertaken, in pursuance of contr	act
no	ter
caned the contract ).	
AND WHEREAS it has been stimulated by you in the still as a state of the state of	ii a
AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furn	ish
you with a bank guarantee by a scheduled commercial recognized by you for the sum specified therein	as
security for compliance with its obligations in accordance with the contract;	
AND WHIEDEAC 1	
AND WHEREAS we have agreed to give the supplier such a bank guarantee;	
NOW THEREFORE we hereby affirm that we are property of the state of th	
NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf	of
the supplier, up to a total of Rs.————————————————————————————————————	ou,
upon your first written demand declaring the supplier to be in default under the contract and without ca	vil
or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without you	our
needing to prove or to show grounds or reasons for your demand or the sum specified therein.	
We hareby weign the managin of the Line Country of the country of	
We hereby waive the necessity of your demanding the said debt from the supplier before	
presenting us with the demand.	
We further come that an above at 122	
We further agree that no change or addition to or other modification of the terms of the contra	act
to be performed thereunder or of any of the contract documents which may be made between you and t	the
supplier shall in any way release us from any liability under this guarantee and we hereby waive notice	of
any such change, addition or modification.	
This assessment of the Colonial Colonia	
This guarantee shall be valid until the day of, 20	
er sammen mulatro di 2-7 serios terb antis en laga est al serios de sele an que pero l'armeten se jartego	
Transfer had be subset to the distance of the subset of th	• • •
(Signature of the authorized officer of the Ban	ık)
Nome and desired to 64 and 65	
Name and designation of the office	er
	•••
Seal, name & address of the Bank and address of the Bran	oh
, mand be diddless of the Dank and addless of the Dian	UII

# SELF-DECLARATION - NO BLACKLISTING

	part of the part o
To,	
The Director Procurement,	
Bihar Animal Sciences University	y, and an interpretable statement of the
Patna-800014, Bihar	a reprove a province of a province of a video province of the second of the second of the second of the second The second of the second of
Dear Sir/Madam,	n syntaen och om ni harry i 17st sax nei 1850 1966.
Ref: Tender for the supply and installatio	n of various laboratory equipments/instruments for the College
of Fisheries, Kishanganj.	and all complicates are marriaging required that the light end of a superior of the complete sup
	ent for the supply and installation of various laboratory
equipments/instruments for the College	of Fisheries, Kishanganj, BASU, I / We hereby declare that
presently our Company / firm	is having unblemished record and
is not declared ineligible for corrupt & fr	raudulent practices either indefinitely or for a particular period of
time by any State/ Central Government/ I	PSU/Autonomous Body.
We further declare that presently our C	ompany/ firmis not
	eligible for reasons other than corrupt & fraudulent practices by
any State/ Central Government/ PSU/ Au	ntonomous Body on the date of Bid Submission.
If this declaration is found to be incorrect	t then without prejudice to any other action that may be taken,
my/ our security may be forfeited in full	and the tender if any to the extent accepted may be cancelled.
Thanking you,	
	Yours faithfully,
inenti eti la 4700. berkirik eti laku	of the property of the second
Place:	Signatures
Date:	Name
	Seal of the Organization

N.

### Chapter - 11

# 

**AUTHORIZATION LETTER FOR ATTENDING TENDER OPENING** 

Chapter - 12

### PREVIOUS SUPPLY ORDERS FORMAT

Name of the Firm:

Date:

and Date	and quantity of ordered equipment	order			person along with telephone No. Fax No. E- mail address
			40		
				38 10 MAZINE 37	
	y	of ordered	of ordered	of ordered of delivery as	of ordered of delivery as satisfactorily? [Attach equipment per contract a certificate from the

Signature and S	eal of the M	anufactu	rer/ bidde	er	 	
erle Andrikati						
Place:						

## TECHNICAL SPECIFICATIONS

The Required Technical Specifications of Scientific Equipments/Instruments as follows:

Gr. No.	Equipment Name	Qty.	Specifications
1.	MICROSCOPE WITH	01	1. Type: Upright compound microscope with full
	IMAGING SYSTEM	1.7365	Koehler Illumination
			2. Control Display: 5-element display on either side
down at		106.00	of the stand and long-life blue LEDs. This
51146(814		va čniri	intensity display is well readable from several
	AND YOUR PROPERTY OF		meters distance.
es talmis	e of balls with the face out is t	10 to	3. Contrasting Method: Bright field. Upgradeable
	nard elikun yeng pend	sale and	to Phase Contrast, Dark-Field, simple Polarization
disting t	elle e cantigee, beginning	20 TAK	and Fluorescence
	\$4.00 Sec. 1	CHUIC III	4. Illumination
77.X	or been every sould for the fire	100	With modular slide-in concept
	DO A Per CHEAN		<ul> <li>Must be easy change of illuminators from LED to</li> </ul>
	and the forest and the same	ar uzari	halogen
	the the first striketing	6/295-7	• LED illumination 3W white-light, 5600K,
		- 257	lifetime 35000 hours
	er il terrer so elegique abilité	31/40	Halogen illumination with 6V 30W halogen lamp
	in My Nesgan Ingener		Homogeneous field illumination 22mm
	эм эхрэ Фенна ОС Унын		<ul> <li>Light manager remembers precise amount of light set for each lens position</li> </ul>
B.C.BK	THE CONTRACT CONTRACT	eren s	5. Optical system: Colour-corrected infinity optics
11 1516	erand de Bart Clarente rece		6. Eyepiece
			• A pair of eyepieces 10x suitable for spectacle
THE WA	ortholde as started party	e Peritari	wearers and retro fittable eyepiece pointer
75130	and a straight of seath	State of	<ul> <li>Eyepiece with field of view of 22mm</li> </ul>
	Mark Commence	reduced b	<ul> <li>Eyepieces secured with setscrews against</li> </ul>
		(G-0)	unauthorized removal
5.02 25 0			7. Objectives: With High quality objectives of the
			iPlan-Achromat class:
	TO SHADOW AS BURNE OF	ande el	• iPlan-Achromat 4x/0.1 WD: 30.7 mm
		(Jesusilla	• iPlan-Achromat 10x/0.25 WD: 17.4 mm
	und out to the fact their	DIA THE	• iPlan-Achromat 40x/0.65 WD: 0.6 mm
X FW	destructions of the section of	2017/4/2018	• iPlan-Achromat 100x/1.25 WD 0.30 mm
	THE REPORT OF THE PARTY OF THE	76 TO 18	<ul> <li>5-position nosepiece tilted back and objectives</li> </ul>
	15. 경하네요 : (C) 경기를 하고 하게 있다. C 하시네 하는 그리고 하게 되는 것이다. 나는 다른 사람이 되었다.		secured against unauthorized removal
	Will be Award to house		8. Condenser: Focusable and centerable Abbe
2.70	At all Marks green bay OA or marks inspect that	ogeogra	condenser 0.9/1.25. With Holder for phase contrast
	PACE BUT SHOPPING HANDERS THE		and darkfield sliders
	No. all the second		9. Viewing Tube
7 7			• Viewing and Trinocular tubes (50%:50%) with
2 32 NOVE 18 18	The complete of the complete o		25° angle and field of view 22mm
	V 029/24	dr-death	<ul> <li>Siedentop "up and down" position for 2 different viewing heights</li> </ul>
47.2 E	VELOCIAL YOUR AND		<ul> <li>With interpapillary distance continuously variable</li> </ul>
er, gen	erigi etin temminesi	e fallering	from 48 to 75 mm by asymmetric folding of the
		Yanz	binocular part
	380 1 (73)		• Tube is secured against dropping by special
	South and a series		dovetail

			10. Stage
	a well of an amount of	i de la constante de la consta	Mechanical reckless stage with long-lived stage surface with right-controls
			• Stage size 185x135, travel range 75x50
	Appendiculturally.		With well-readable Vernier and long
		4	"Ergonomic" stage drive
	19,1500		With double-slider holder
55,575,60	nde verdat angulijast t <b>ych</b>	g 13 30	11. Power
34.8 J	e sideles les es es	10 Pag	<ul> <li>With power unit integrated into stand with cable storage at the backside of the stand. Ergonomic</li> </ul>
	si ili eta de la composición del la composición del composición de la composición del composición del composición de la composición de la composición del composic	millen millen	<ul> <li>shape for convenient, safe carrying.</li> <li>5V USB port at the back of the stand to connect a power bank or charge mobile device</li> </ul>
			ECO mode, automatically go into a sleep mode after 30min inactivity
会《萨斯·斯	entre e establish Period de establish de eg della		<ul><li>12. Filters: Colour filter set blue, green and yellow</li><li>13. Dust Cover: With Dust Cover</li></ul>
Section 1	argustado W.S. antide Sara Sec		<ul><li>14. Anti-fungus treated optics. Must provide anti fungus certification from manufacturer.</li><li>15. Camera</li></ul>
all yet a		M. Han	• Colour camera 8 Megapixels or better, pixel coun
	eran il madere mon bischen Grane i lang i madere bisch		- 3840*2160, exposure range of 0.06 ms to 1 with a frame rate of 30 fps with a passive cooling
	and the second second	the to	system.
1		r David Je Sapri	<ul> <li>Camra should have interfaces – HDMI, USB 3.</li> <li>Type C, Ethernet, Micro-D Full 4k Resolution is</li> </ul>
3-8-0	the progress of the second		30 fps.
1			The camera shall provide an on-screen displa (OSD) that allows to control the camera without
			<ul><li>an extra controller/computer or software.</li><li>In the OSD, camera parameters and the image fil</li></ul>
setr Nei de			name shall be selected and adjusted via mouse an keyboard.
	res of Carton en engint Commission	STORY OF	<ul> <li>Images shall be stored conveniently on a US flash drive.</li> </ul>
	and the first of the strain states		
A301532-01	vome gjage hodin stjolome Jovensi i samenim sade		<ul><li>computer and software.</li><li>The camera shall provide multiple setu</li></ul>
Sin A	arevanega en se senare en engal Se segono en segono de en encare		possibilities to use it in a wireless mode
	englin set nggjerggetori. På en Elokali		16. Microscope and camera should be from sam manufacturer and System should be ISO and C
160 27 12 1	erakko dakoa unakanak ba		Certified.  17. System should come with desktop (All in or desktop:- Intel Core i5, Memory 8 GB, Hard Dis
	क्षेत्र स्थापन स्था स्थापन स्थापन		Drive 1° TB or higher SATA. Hard Drive) with data analysis software
esta en la companya de la companya d	olog dur sommit rusti Bolomos ur er at mare	erraila erik	18. The system should have minimum 2 years onsign comprehensive warranty from the date of installation.
2.	DEEP FREEZER (-80)	02	<ol> <li>Capacity: 360-380 Ltrs</li> <li>External dimension should be within (H x W x cm): 200 x 95 x 85</li> </ol>
			3. Must include NON-CFC REFRIGERANTS 4. 13 cu. ft. capacity Upright, with (2) 1 horsepower compressors

		<ul><li>5. Latch and handle for ergonomic handling and one hand operation with padlock capability</li><li>6. Durable Steel interior with Inner doors.</li></ul>
		<ul><li>7. Down-feed evaporator</li><li>8. Adjustable solid Stainless Steel shelves</li></ul>
Same of the state		9. Triple -sealing silicone door gasket 10. 5" non-CFC foamed-in-place polyurethane insulation; 4.5" in door
ie un de many la maner e sonat. Validado e pele e		11. Two 10" tube axial fans to provide maximum cooling of the compressor Housing
From Carlo Jawelli Pale 1660  Albert Milas De Pale 16		<ul><li>12. Heavy-duty dual wheel swivel locking casters.</li><li>13. Automatic voltage compensator responds to high and low voltages</li></ul>
y VATO box medi Color y Washington of San Carlo	Mai de la compaña de la co La compaña de la compaña d	<ul><li>14. Powder coat paint for a durable surface</li><li>15. Service valves provided to allow easy recovery of refrigerants and field servicing.</li></ul>
A THE DO STORY SHOWS THE STORY	101	16. Front to back airflow with Removable, cleanable air filter
The Seas Service Service A complete service	3×00	<ul><li>17. Hinged grill swings out for easy access to filter and battery</li><li>18. A vacuum relief port allows easy re-entry after</li></ul>
RIME STAGE AND ADDRESS OF THE STAGE AND ADDRESS OF THE STAGE ADDRESS OF		door openings 19. 4" open x 12" long heavy duty hinge for ensuring
THE RESERVE OF THE PROPERTY OF	sent inc	positive closure and Un-interruptive service 20. TEMPERATURE CONTROL
of the objection that was the transfer to		<ul> <li>The microprocessor controller must monitor in one degree C increments, with digital display.</li> <li>Eye Level Information center for At-a-Glance</li> </ul>
202000 Skw med posts +2 report perfects to 8 200000		Monitoring     Temperature probe must be positioned to insure the alarm sounds before the stored product can
The damping of the sales of the	10 - 10 - 20 10 - 30	<ul> <li>be affected by a rise in temperature</li> <li>Battery back-up for the alarm monitoring system</li> <li>Both visual and audible alarms must alert</li> </ul>
[1] (a) 3 (a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	1100	operator of over and under temperature, power fail, door ajar, and low battery conditions
The state of the second second of the second	die antyle Physika	<ul> <li>Dry contacts included for connection to optional remote alarms.</li> <li>Optional eye level recorder mounted in the door</li> </ul>
es.		or optional data logger 21. CERTIFICATIONS: CE Mark. Manufactured by an ISO-9001 company
		22. The system should have minimum 2 years onsite comprehensive warranty from the date of installation.
3. REFRIGERATED CENTRIFUGE	01	<ol> <li>Capacity: 4x145ml</li> <li>Speed: 17,800 RPM</li> <li>RCF: 30,000xg</li> </ol>
Tradition less agricult de distancial agent Casal est la contract, bette distallage (1975)	The state of the s	<ul> <li>4. Temperature range: -10°C to 40°C</li> <li>5. The rotor should have auto lock system by which it</li> </ul>
tener of self-before the over a stress of grow self-constraints of	S DANGE I	<ul><li>can be installed and removed with no tools.</li><li>Should have One-touch operation with pre-saved</li></ul>
to sake scholators sation illustrate of assaulte firm to be a microscopy groups	io de Laboro Laboro	<ul><li>protocols. 3 direct program buttons, 96 additional programs accessible via folder.</li><li>7. Should have Pre-Cooling Function with direct</li></ul>
Par Burko mengerakikan kecamatan	nerster Market	button.  8. Refrigeration System should be CFC Free.
and the second of the second o		Page 41 of 57

	varista ivela costenia b varista ivela costenia	ណ្ឌ មាន លោក មាន	9. Sound Level should not be more than 56 dBA.
resit of	(og saar gebosed v		<ul><li>10. Shouldn't have drainage system.</li><li>11. Bucket lids must operate in a safe manner withou spring clips or metal components.</li></ul>
	Parasan in Paras Services Anno American Common Grant		12. Centrifuge must have a swing out rotor capable o spinning samples above 16,000 xg.
	en de la composition della com	2015	<ul> <li>13. The machine should offer following rotors to mee future needs of the lab by just adding rotors:</li> <li>Fixed angle rotor 6 x 50 mL Individually Seale</li> </ul>
	un deur gestle of both fra gestler de blest k	io chim	<ul> <li>Rotor, 5,600 rpm, and 5,014 x g.</li> <li>4 standard or 2 deep well micro plates, PCR strip and haematocrit capillaries</li> </ul>
	an water same same. The chart weather to		<ul> <li>Rotor for running up to 30 spin columns is certified sealed angle rotor, 14000RPM 22000xg</li> </ul>
			<ul> <li>Swing out rotor to spin 8 x 50ml or 15 ml conicatubes. 4000 RPM, 3300xg</li> <li>Rotor to be supplied:</li> </ul>
	April 18 de de de Periodo de Carente de April 18 de la Carente de	alieda s MAJEI	<ul> <li>Fixed angle rotor 6 x 50 ml in bio containment certified angle rotor, with speed not less that 9,500 rpm, 12,100 x g, and Adapter for 15 ml</li> </ul>
7,4 (8)	is foligibation (as emprises). 14. ISS nestres reconstruction	angor.	<ul> <li>Swinging out plate rotor with capacity of 4</li> <li>standard or 2 deep well plate with spee</li> </ul>
The Name of	samatikog od vitro soleng sa Tanota sati srasbal samao vitros postan ozos v ad	ansie Gesta	<ul> <li>4400RPM, 2500xg.</li> <li>Fixed angle Microliter rotor 24 place rotor with speed not less than 17,800 rpm / 30,200 x g</li> <li>15. CE marked, IVD compliant, UL listed- for safet</li> </ul>
reas de System (197	ndrommentano nacione ha sel zmedlo sidibulo base namedinas mbas nas savo sellomo grancad via leccino		containment  16. The system should have minimum 2 years onsit comprehensive warranty from the date of installation.
4.	REAL-TIME PCR	02	The system should be automated integrated 96 we peltier based for both real-time PCR and post-PC (end-point) analysis with 6 independent
	1975, P. Mark Policina Signal Signal Pake (Signal Pake)		controlled zones.  2. It should have interactive touch screen LCD for standalone operation with 8 – 10 GB onboar memory for storage of at least 1600 - 2000 runs.
st2 - 016 x			3. System should support minimum recommended reaction volume of 10–30 μL/10–100 μL from 0.1/0.2 mL block.
			4. The Quoted System Should support the temperature range from 40 to 100°C with bloom ramp more than 6 DegC/sec, and run time less that
10 (9e-91		gdistsin 1755	5. System should have four coupled / six de-couple excitation and emission filter sets to enable
	s of popular magamatan sekantin dela managan pada dela	AZ-LITE	collection of up to 21 unique combinations wavelengths during a single run for multiplexis five colours or above.
en light traine	week vissel beoris gaak Element kan keek ka is waxaa	100 DE	6. The System should utilize a bright white LI source, excitation by LED light source with a > years lifespan and detection by CMOS/CCD w
		1-43	whole plate imaging and detection.  7. The system should be factory calibrated for t following FAM/SYBR Green

50)

 VIC/JOE/HEX/TET,	ABY/NED/TAMRA/Cy®3,
JUN, ROX/Texas Red	[1] - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
	11 4 1 1 4

- 8. The system should be able to do applications such as Gene Expression, Genotyping, Copy Number Variation, Pathogen Detection, Strain Typing, and Viral Load, Mutation Scanning, Methylation and other Epigenetic
- Applications, miRNA profiling, Protein analysis with proximity ligation assays and Protein Thermal Shift technology.
- 10. System should detect differences in target quantity as small as 1.5-fold in single plex reactions, and should have 10 logs of linear dynamic range.
- 11. Single-plate analysis Absolute and relative gene expression, SNP genotyping, presence/absence, high resolution melt, Multiplate analysis Gene expression studies, SNP genotyping studies.
- 12. The normalization of reaction due to non-PCR related fluctuations should be possible by using any calibrated dye.
- 13. The system can be connected to the online ecosystem and instrument data/status will be automatically uploaded, allow users to access and securely share result with colleague anywhere, anytime from any location with internet access
- Features to assist with 21 CFR part 11compliance Security, auditing and e-signature, CE, ISO, and MIQE compliant
- 15. System should come with desktop (All in one desktop:- Intel Core i5, Memory 8 GB, Hard Disk Drive 1 TB or higher SATA Hard Drive) with data analysis software.
- 16. The system should have minimum 2 years onsite comprehensive warranty from the date of installation.

#### 5. NANO-SPECTROPHOTOMETER

- 1. Wavelength Range: 190-850 nm or better
- 2. Sample Size: 1 μL

01

- 3. Path length: 0.03 to 1 nm
- 4. Light Source: Xenon flash lamp
- 5. Detector Type: 2048-element CMOS linear image sensor
- 6. Wavelength Accuracy: +/- 1 nm
- 7. Spectral Resolution: <1.8 nm (FWHM @Hg 254 nm)
- 8. Absorbance Accuracy:  $\pm$  3% (at 0.97 absorbance at 302 nm)
- 9. Absorbance Range: Pedestal-0-550 A (10 mm equivalent)
- Detection Limit: Pedestal: 2 ng/μL dsDNA, BSA (IgG): 0.06 (0.03) mg/mL
- 11. Maximum Concentration: 27,500 ng/µL (dsDNA)
- 12. Measurement Time: < 8 seconds
- 13. Touch Screen: >6 inch 1280 × 800 high-definition colour display, android based Quad Core ARM Cortex A-9 Processor, Multipoint capacitive touch, Gesture Recognition: Single point, single point hold, swipe and pinch.

			<ol> <li>Connectivity: Three USB-A ports, Etherne Bluetooth and Wi-Fi</li> <li>Internal Storage: 32 GB flash Memory</li> <li>Software: Software should have feature to identify the contaminants like protein and phenols samples and reports corrected analyte concentration System must have image analyser to detect bubble and other anomalies in the sample column. Software should provide instant feedback about samp quality with on-demand technical support for guide troubleshooting.</li> <li>Application Support: Nucleic Acid A26 A260/A280, A260/A230 and Labelled Nucle Acids; Protein A280 and A205, Protein Pierce 66 Protein Bradford, Protein BCA, Protein Lown Labelled Proteins, OD600, Kinetics, UV-Vis, and Custom Methods.</li> <li>The system should have minimum 2 years onsi comprehensive warranty from the date installation.</li> </ol>
6.	GEL DOCUMENTATION	01	1. The system should have Small footprint
	SYSTEM		<ol> <li>conserve benchtop space.</li> <li>The system should come with a UV light base 31 nm and is capable of visualizing both DNA ar RNA gels</li> <li>It should have option for the use of safe blue-lig trans- illumination without the risks of UV lig trans- illumination.</li> <li>Provision for Sensors to permit illumination on when the Imager Camera Hood is proper positioned over the Light Base unit.</li> <li>It should be Compatible with a wide range of fluorescent and visible dyes (e.g. Qdot®, SYB Safe®, ethidium bromide).</li> <li>Compatible with different gel formats including precast gels (e.g. E-Gel® Agarose Gel NuPAGE® Novex Bis-Tris Gels) and poursyourself gels (agarose, or polyacrylamide).</li> </ol>
la seri			<ol> <li>It should perform Real-time sample imaginal allowing detailed sample viewing.</li> <li>It should eliminate the need for film or processing chemicals.</li> <li>Electrical Requirements: 100-240 V, 50/60H</li> </ol>
40 to 1		4 1	0.64
2.26			<ul> <li>0.6A</li> <li>10. Temperature: Ambient ± 5oC to 40° C</li> <li>11. Viewing surface dimensions should be: 12 cm</li> <li>15 cm</li> </ul>

				installation.	7
7.	WATER PURIFICATION	01	1.	System should be quoted along the external Pre-	1
	SYSTEM			treatment and External RO to handle the silica free	
All the street of	Service and the first service of the	MOREOVERS	des per	applications.	-
			2.	System should be standalone single stage system-	
				produce Endotoxin and bacteria free ultrapure	
				water Type 1 and Type 2 directly from potable	
	The Market			water supply.	1
			3.	System should be capable of providing ASTM	
				Type I (18.2 Mega ohm resistivity) Water and have	
				the UF cartridge to cater Biological applications	
			4.	System should be capable of providing ASTM	
				Type II (1-10 Mega ohm resistivity) Water from	
	er con contraction	2127504		potable tap water	
		(11.90)	5.	System has feed water acceptance level of	
100	figit for wasself news cases ki	Gir Ordi	berg.	Conductivity upto 1500 µS/cm or more, Fouling	
	Stratz	经验价	56 Hel	Index (SDI) $> 3$ and Total Chlorine less than 0.1	
	Tarangan ali 1900 da se	- 945 (16	liggis!	ppm or more	
The state of	THE STATE SHOULD NOT THE		6.	System should have a pre-treatment kit with 1μm	
	이 그렇다 그는 사람이 가장 그 그들은 것이 하는 것이 없는 것이 없는 것이 없는 것이 없는 것이 없다면 하다면 없다면 없다.	in cert	7	filter, Harness Stabilizer and Carbon	
Davida	가게 되어지는 이 얼마가 뭐가 하게 되었다. 그리는 이 아이들라는 가셨다. 하를 하셨다면 했다.	-tindia	7.	System should have RO Flow rate 3Ltr/hour or	3
	130×27 1 2 100 200 000	×(10 0 kg	Q	more	
	9 A Abol a salk salau r ) broken samagenat s		0.	Type 1 water flow rate should be equal or more than 1Ltr/Minute	
1-16/1522	op sommene steeringsteer. Die een steering van die steeringsteer van		O	Reverse Osmosis module is made up of thin film	
1				composite polyamide RO membrane with rejection	
				rate of 94 - 99%	8
1335	AND AND A COURT DA		10	System should have water specific Purification	
	e lett teletimes e igi eri			pack before UV lamp consisting of mixed bed ion	
				exchange resin/ micro filter / activated carbon to	
1	wide Mark I was spinked			ensure better purification and longer life of the	
A Griego	그 씨는 그 없는 소개가 하는 것이 바라하고 그렇지만 한 것이 없는 것이 없다.			cartridges.	
	nd tareer is a remark or remark or also		11.	UF should be inbuilt in system come with the life	
i Angle	to deduce a state and paying		i e	of 2 years to avoid any recurring cost.	
a enim	ne section is considerable and an i		12.	System should have dual wavelength 185/254 nm	
	Della Company was all saids		13304	for UV-oxidation for reducing the content of	
	expension of a start		58886	microorganisms and their metabolites to ensure the	
1114	and second and all according			quality of Type 1 water	
	description of an incoming			System should have inbuilt reservoir 6 ltr or more	-
	현실 [1] 이 경기 교통적으로 보는 아마를 하면 있다면서 그 아마를 하는데 가게 되었다.		rinch	in volume. Water is recirculated through High	
	Thur Sandard and the lateral (a)		PS (F)	Purity Cartridge to maintain purity of Type 2 water	
121,121	Taliforning services and and		1000	in tank all the time.	
	The college countries		14.	System should have to fed with imported Pre-	
	e Platopa de demografia e seb		15	treatment water as to take the excessive care.	
	가는 그는 그리아 하는 경기 점심을 하지 않는 것이 생각하는 것이 하는 그를 가고 있는데 하다.		13.	System be compatible for onsite IQ/OQ(Onsite Validation)	
1 2 14 1 6 M	n frazz ar sa enege et engog n sale dinas bereinnes		16	Validation) Production rate of Purified Water @ 2 land	1
in the same			10.	Production rate of Purified Water @ 3 ltrs/hr or more	
3112323	A 100 A		17	System should be quoted with one set of	
The state of	d 7. Sanda Albarda ett la			Consumables including RO.	
			18	Technical specifications .	
	시작에 있다고 하는 아마스 : 10일 등 등을 하는데, 전화 전문을 하는 이 사용을 하는데, 하는 사람들이 가능하는데 없다.			Ultra-Pure (Type I) water	
2 Jan 1	TO SERVICE TO CONTRACT )			• Resistivity: 18.2 Mega Ohms.cm @ 25 Degree C.	in.
77 510	Basicanas dense bases agrees		132.3	• TOC: < 5 ppb	
1	PRESIDENCE COMPANY			• Bacteria: < 0.01 cfu /ml or better	
	TO MARKET BE			• Particulates ( 0.22 micron ): < 1 /ml	
. TOTAL	era radio fava sudaga sina		31776	RNAse: < 0.003 ng/ml or better	
			1	Terrese. \ 0.005 fig/fill of better	

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gezen ig to elithes al to Wass che i cate pass e e Santages adam as i	<ul> <li>DNAse: &lt; 0.4 pg/ml or better</li> <li>Endotoxin: 0.001 EU/ml or better</li> <li>Flow rate: ≥ 1 Litre/Minute.</li> <li>Ultra-Pure (Type II) water</li> <li>Resistivity: &gt; 1 Mega Ohms.cm @ 25 Degree C.</li> <li>TOC: &lt; 30 ppb</li> <li>Flow rate: ≥3Ltr/hour</li> <li>20. The system should have minimum 2 years onsite comprehensive warranty from the date of installation.</li> </ul>
CLEAN BENCH SYSTEMS FOR BIOSAFETY CABINETS	<ol> <li>HEPA-filtered exhaust air in Type A2 cabinet May be re circulated into the room or exhausted to the outdoors through a canopy exhaust connection.</li> <li>HEPA-filtered down-flow air is a portion of mixed down-flow and inflow air from a common plenum.</li> <li>Negative Pressure air surrounding all Biological contaminated ducts and plenums.</li> <li>Negative pressure surrounds the work area with double wall plenums for protection</li> <li>High velocity air forced through HEPA filters, Filtered air is thrown in the chamber with a high velocity which in turn disperse particulate matter on all surface, The lower portion of the Air showers suck the contaminated air and allow it to pass to blower supply plenum, This process is a continuous process in which air is continuously filtered and recirculated inside the chamber without any exchange with the external environment</li> <li>Exhaust air pass through HEPA Filter &amp; Virus burn unit. Exhaust ducting with L- Bent PVC pipe supplied with the machine.</li> <li>Material Of Construction:- Outer Body- CRCA Sheet epoxy Powder coated antibacterial&amp; Antirust effect, 22 gauge OR Stainless Steel-304 PVC /Material Of Circles (2001)</li> </ol>

			Ī	the working chamber.	1
			al C	14. Front door – Counter balanced weight with 5 mm toughened/tempered glass UV –protected to protect	
				customer from UV Exposure — complete transparent along with base structure to hold the	
				cabinet & ease of access.	
				15. Air flow type: - Vertical Air flow from the top.	
				16. Air Flow Velocity: 90 FPM ±20%, Inflow	-
			The state of	Velocity: 0.53 m/s, Down flow Velocity: 0.33 m/s 17. Aerodynamically designed front airflow intake grid	
			en nijemo	eliminates potential turbulence an contamination	
			Tens -	18. Statically balanced motor blower Assembly (Heavy	
			n 0404	Duty), 1440 rpm, ¼ hp. Noise of the blower is less	
			x rest	than 55 dBA & Very low vibration  19. Filtration Assembly: - Room air is drawn from the	
				top of the cabinet through a HEPA-Filter, then the	
				air pass through HEPA Filter and spread evenly in	
			ing)	the working area providing a constant a stream of	
				clean air flow within the work area. Also the exhaust air goes though HEPA filter to maintain a	
				complete safe arena. HEPA Filter is Mini pleat	
		atalia likita isala milangsiste.		type, made from water resistant, fire retardant,	
				imported micro-fine glass fibre media; conforms to	
	P Series		N Daskin	EU – 14 Grade, with an efficiency rating better than 99.999% for 0.3 μ. These filters are designed	
	production	Owner to be a feet to high		to accommodate higher air flow volume.	
		ON ANIX	ng 2 toxis	20. Perforated diffuser screen /shield mesh guard	
			1011	protect Filters from damage. 21. Front angular 10 degree slope helps reduce fatigue	
			THE COLUMN	of user.	
				22. Pressure manometer to track filter pressure &	
				air/gas cock inside the working area	
				23. Easy removable back/front panel for easy access to electrical fittings and easy removable filter	
	AND DE		o zasak	placement for ease of access during service.	
			A TOP	24. Wheels: -Mounted on heavy tubular stand with	
				lockable castors with foot rest.	
	1.00	responses with the figure of	100 AV 50	<ul> <li>25. Electricals fittings &amp; Fixtures: -</li> <li>Microprocessor based PID Controller – UV</li> </ul>	
			Mark al	ONOFF, UV-Timer, Blower 3 speed control	
				High, Low, Medium, and Display of UV Age.	
				• Fluorescent light – 20 watt, >800 lux, with	
				chokes for lighting UV Light - 15 watt, Philips make	
				• Power supply -220-230 V, 50-60 Hz, 5/15 amps	
	Tara takan			power cord.	
			i in the s	<ul> <li>Internal 5 amp electrical connection for usage of several machines in clean air</li> </ul>	
		and the second	de describes	26. The system should have minimum 2 years onsite	
			17 32 863	comprehensive warranty from the date of	
	9.	CO INCUDATOR		installation.	
**************************************	7.	CO <sub>2</sub> INCUBATOR	01	<ol> <li>Capacity: 6.5 cu. ft.</li> <li>Chamber Material Polished Stainless steel</li> </ol>	
	54355			2. Chamber Material Polished Stainless steel Dimensions (D x W x H) Interior 20 x 21.3 x 26.8	
				in. (50.8 x 54.1 x 68.1 cm)	
				3. Dimensions (L x W x H) 25 x 26.3 x 39.5 in. (63.5	

Wall Marks

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			x 66.8 x 100.3 cm)
		raje di Granda	4. Temperature Range (Metric) Ambient +5°C to 50°C Relative Humidity
Total Control	the second of the second	A AMERICA	5. CO2 Sensor Technology IR Sensor Type
		e v i	
			들어보다 가는 어느 없는데 보다면 하면 하면 하는데 되었다. 그 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들이 되었다.
		100000	7. CO2 Concentration Range 0 to 20%
			8. Certifications/Compliance UL, cUL, CE Data Outputs Optional 4-20mA
		este este est este est	<ol><li>The system should have minimum 2 years onsite comprehensive warranty from the date of installation.</li></ol>
0.	MICROTOME	01	<ol> <li>Designed for effortless manual sectioning via a counter-balanced, exceptionally smooth-running</li> </ol>
			hand wheel.
		2. Instrument with X/Y specimen orientation	
		3. Fast exchange system for specimen clamps, both	
A STATE OF	the company of the sale	4	Universal Cassette Clamp & Standard Clamp
2022	Secretary and the first of the first		4. Personalized User Selectable Coarse Feed wheel
	THEORY FOR TO LETTER 5		turn direction, either Clockwise or Anti-Clockwise
Mary 1			to suit user's preference
			5. Retraction on/off function
	U-man and manager		<ol> <li>Two mechanical trim steps at 10 μm, 50 μm: (50 μm coarse, 10 μm fine)</li> </ol>
			7. Blade holder for disposable blades—must be for
3 0	ng nga nga pane mantikabatan		both High & Low Profile with standard specimen
trial i	telymos vest the sign		clamp.
	an day, terpula relación for enga		8. The object head with +/-8° X/Y orientation
			equipped with a fast specimen clamp exchange system for improved workflow.
			9. Storage space on top of the instrument housing
			provide room for sectioning tools and accessories.
	The same of the sa		10. The instrument feature a low-maintenance
			micrometer feed system with backlash
12)	ngarat ng tayangdag).		Maintenance-free vertical cross-roller guides and horizontal specimen feed via precision cylinder
Arriga 2	ic affallant protestation		guide system.
		15.60	12. Distortion-resistant base plate ensure optimum
Jr. 15 3	The recognition of a second gr		overall stability.
	10 30 10 10 30 10	Red Jak	13. The vertical stroke of 59 mm
	stantining of the book	8.5344	
		i de Paris	14. Horizontal specimen travel range of 25 mm
			15. Allow to section specimens up to a size of 50 mm
			x40 mm x 40 mm.
1000			16. Ergonomically designed hand wheel grip.
	AND THE PROPERTY OF A SOL		17. Hand wheel lockable in any position via brake
			lever attached to base plate
			18. Lockable hand wheel in upper position via hand
	Carteria e proposada de la Carteria (Carteria)	and the same	wheel grip.
	Ψ,		19. Location conditions:
			• Operating temperature range 10°C to 35°C.
100		1	<ul> <li>Temperature range during storage 5°C to 55°C</li> </ul>

•	Relative	humidity	max.	80%,	, non-condensing	
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- Storage humidity < 80%.</li>
- 20. Technical information- Section thickness setting range 0.5–60 μm.
- 21. Section thickness selection from 0.5-2 μm in 0.5 μm-steps.
  - from 2–10 μm in 1 μm-steps.
  - from 10-20 μm in 2 μm-steps.
  - from 20-60 μm in 5 μm-steps.
  - Total horizontal specimen feed 25 mm.
- 22. Vertical specimen stroke 59 mm
- 23. Specimen retraction ON/OFF
- 24. Specimen orientation: Horizontal 8° & Vertical 8° with Rotation ± 90°
- 25. Dimensions and weight should be lean & compact must occupy lean work space in lab
- 26. Must include Sturdy Waste Tray
- Must be Imported Model with both European CE & USFDA Certified
- 28. The system should have minimum 2 years onsite comprehensive warranty from the date of installation.

# 11. PARAFFIN EMBEDDING STATION

#### I. Hot Plate:

01

- 1. Microprocessor controlled two-piece tissue embedding system consisting of heated paraffin station and separate cold plate.
- The paraffin flow is activated by means of a heightadjustable, pivotable clip - activated either manually by pushing or via a foot switch with controllable flow rate.
- Working start time and end time settings, Weekly working days setting with real time setting.
- 4. Should have symmetrical and unobstructed workspace: The 100% symmetrical and unobstructed workspace with equal left & right working spaces from the dispense nozzle in between, reduces distractions and allows to keep your cassettes, molds and other accessories warm and at hand for a smoother workflow.
- 5. Should have Easy-to-open spacious trays for efficient access to cassettes and molds: Easy-toopen trays allow for efficient access to cassettes and molds, resulting in smoothly run batches. Tray lids should be half opened to keep the temperature stable.
- 6. Should have bright white LED for contrast and visibility of the most transparent samples- Easily Controllable by the key on LCD control panel: The

- bright white LED improves contrast and visibility of the most transparent samples.
- 7. Provide the error message for operation condition monitoring.
- 8. Large heated working surface and integrated mold tray and cassette bath with temperature adjustment from 50 to 75°C in 5°increments.
- Cassette bath and mold tray should be interchangeable to accommodate changes in embedding work flow.
- 10. Should have Easy to clean metal frame and silicon coated wristpads. The ergonomic wrist pads increase hand stability and precision, even when embedding the most difficult biopsies.
- 11. Programmable for weekly timer, work days, work starting time, work end time, real time and day of week for automatic switch on and off of the instrument.
- 12. Operating temperatures: 50 °C to 75 °C, adjustable in 1 °C increments.
- 13. Should have RAPID Heating: to boost heating if wax in needed to refill in between instrument run, then rapid heating allows wax granules to melt within 15 minutes.
- 14. Easy to clean metal frame and silicon coated wristpads. The sturdy design of the special scraper helps clean all grooves and crevices.
- 15. Removable tray must hold: approx. 150 cassettes
- 16. Paraffin tank: Max. 4 L
- 17. Rectangular shaped Peltier cooling unit in front of the nozzle—for immediate freezing of the molten paraffin.
- 18. Display: 5.7 inch capacitive LCD touch screen
- 19. Two Heated removable waste tray & Heated removable forceps 6 nos. holder easily accessible from either side.
- 20. Large peltier element cold spot to assist tissue orientation.
- 21. Power supply: 110-120 V AC, 220-240 V AC, 50/60Hz, Power consumption: 1000 VA max

#### II. Cold Plate

- 22. Operating temperature: -6 °C (self-regulating) to hold up to 70-80 standard cassettes. Temperature should strictly MUST NOT go BELOW -6 °C to avoid tissues getting hard & brittle where chances of tissue destruction & tissue breakage are high
- 23. Min. guaranteed workload capacity: 65 blocks solidified in 30 minutes
- 24. Adjustable work surface height for optimum ergonomics.

installation.  12. AUTOMATIC TISSUE PROCESSOR  1 Benchtop unit, movable on rollers. 2 Carousel-type construction with 12 processing stations: 10 reagent stations, 2 wax baths. 3 One basket operation/standard tissue basket without vacuum/without fume control 4 Connection for optional third wax bath. 5 Glass beakers, solvent-resistant and dishwasher-proof, with beaker carriers and minimum/maximum filling marks. 6 Aluminium standard tissue basket. Membrane keyboard and LCD screen. Locking key to prevent inadvertent changing of programmed parameters such as number of tissue baskets, remaining infiltration time, real time, start time (delayed start time), overall run time and end of run time. Audible alarms, error messages and warning codes for "paraffin solid" status. 8 Manual and automatic mode of operation. 9 Infiltration time of up to 99 h 59 min, individually programmable for each station. 10 Immediate start and delay start up to 9 days. 11 Permanent tissue basket movement (can be switched ON/OFF) at 3 second intervals in both manual and automatic operation. 12 I minute drain time between stations for reduced carry-over. 13 Advanced safety concept. Automatic immersion of tissue basket in a station in case of mains power failure. 14 Power failure indication including station number and time lapsed in excess of programmed infiltration time. Automatic reheating of wax before basket transfer to a wax bath. 15 Crank for manual raising and rotation of carousel-for immediate tissue basket removal or transfer to the next station. 16 The system should have minimum 2 years onsite comprehensive warranty from the date of			2	<ul><li>25. Provision for Self-Regulation so that no need to turn down the temperature in summer or worry about too fast cooling in winter.</li><li>26. Both HOT &amp; COLD Instruments Should have CE and USFDA certificate</li></ul>
2. Carousel-type construction with 12 processing stations: 10 reagent stations, 2 wax baths.  3. One basket operation/standard tissue basket without vacuum/without fune control  4. Connection for optional third wax bath.  5. Glass beakers, solvent-resistant and dishwasher-proof, with beaker carriers and minimum/maximum filling marks.  6. Aluminium standard tissue basket. Membrane keyboard and LCD screen. Locking key to prevent inadvertent changing of programmed parameters.  7. Indication of station and program parameters such as number of tissue baskets, remaining infiltration time, real time, start time (delayed start time), overall run time and end of run time. Audible alarms, error messages and warning codes for "paraffin solid" status.  8. Manual and automatic mode of operation.  9. Infiltration time of up to 99 h 59 min, individually programmable for each station.  10. Immediate start and delay start up to 9 days.  11. Permanent tissue basket movement (can be switched ON/OFF) at 3 second intervals in both manual and automatic operation.  12. 1 minute drain time between stations for reduced carry-over.  13. Advanced safety concept. Automatic immersion of tissue basket in a station in case of mains power failure.  14. Power failure indication including station number and time lapsed in excess of programmed infiltration time. Automatic reheating of wax before basket transfer to a wax bath.  15. Crank for manual raising and rotation of carousel-for immediate tissue basket removal or transfer to the next station.  16. The system should have minimum 2 years onsite comprehensive warranty from the date of			4	comprehensive warranty from the date of
6. Aluminium standard tissue basket. Membrane keyboard and LCD screen. Locking key to prevent inadvertent changing of programmed parameters.  7. Indication of station and program parameters such as number of tissue baskets, remaining infiltration time, real time, start time (delayed start time), overall run time and end of run time. Audible alarms, error messages and warning codes for "paraffin solid" status.  8. Manual and automatic mode of operation.  9. Infiltration time of up to 99 h 59 min, individually programmable for each station.  10. Immediate start and delay start up to 9 days.  11. Permanent tissue basket movement (can be switched ON/OFF) at 3 second intervals in both manual and automatic operation.  12. I minute drain time between stations for reduced carry-over.  13. Advanced safety concept. Automatic immersion of tissue basket in a station in case of mains power failure.  14. Power failure indication including station number and time lapsed in excess of programmed infiltration time. Automatic reheating of wax before basket transfer to a wax bath.  15. Crank for manual raising and rotation of carousel-for immediate tissue basket removal or transfer to the next station.  16. The system should have minimum 2 years onsite comprehensive warranty from the date of		PROCESSOR		<ol> <li>Carousel-type construction with 12 processing stations: 10 reagent stations, 2 wax baths.</li> <li>One basket operation/standard tissue basket without vacuum/without fume control</li> <li>Connection for optional third wax bath.</li> <li>Glass beakers, solvent-resistant and dishwasher-proof, with beaker carriers and minimum/maximum</li> </ol>
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for immediate tissue basket removal or transfer to the next station.  16. The system should have minimum 2 years onsite comprehensive warranty from the date of	este s est the	usee in the state of the state	Jenes Juliania Santa Juliania Santa Juliania Santa Juliania	<ol> <li>Power failure indication including station number and time lapsed in excess of programmed infiltration time. Automatic reheating of wax before basket transfer to a wax bath.</li> <li>Crank for manual raising and rotation of carousel-</li> </ol>
will tree from making earlief improved the Carlot a provide research	1. 70:50 Vinus	egrivere etak kestaga serrika agut of the statul force sungmy montic device websituatesis ega inta 4 as s		the next station.  6. The system should have minimum 2 years onsite

10 22 24

3.	TRINOCULAR	01	1. Upright compound microscope
and the same of th	ICROSCOPE WITH		2. Control Display: 5-element display on either side
The second second second	MAGING SYSTEM	GALIFOLD CA	of the stand and long-life blue LEDs. This
		PV SSPA (A)	intensity display is well readable from several
			meters distance.
			3. Contrasting Method: Bright field, Upgradeable to
	redestricted		Phase Contrast, Dark-Field, simple Polarization
	for group and a contraction		and Fluorescence
		CHALL ON	4. Illumination: With modular slide-in concept; Must
15 45 27 10 28		35,5275	be easy change of illuminators from LED to
	To prove the selection	in Park Bar	halogen; LED illumination 3W white-light,
	alter reservable maderal	i Burga	5600K, lifetime 35000 hours; Halogen illumination with 6V 30W halogen lamp,
in a series		32.6724	Homogeneous field illumination 22mm & Light
	ing in a grad agenciand	in the	manager remembers precise amount of light set for
		200000	each lens position
	ng Aswir - sawir Basibau;	Kimpla	5. Optical system: Colour-corrected infinity optics
	ed gradina Li namoz (10).		6. Eyepiece: A pair of eyepieces 10x suitable for
	schoolen been to getan		spectacle wearers and retrofittable eyepiece
2.0			pointer; Eyepiece with field of view of 22mm;
	Senti Britani i kisala ke salayi.		Eyepieces secured with setscrews against
The Markey Laboratory	Lighter son her d		unauthorized removal
			7. Objectives: With High quality objectives of the iPlan-Achromat class: iPlan-Achromat 4x/0.1
	an da in kala ang ak Januara bar kabupatan		WD: 30.7 mm, iPlan-Achromat 10x/0.25 WD:
			17.4 mm, iPlan-Achromat 40x/0.65 WD: 0.6
			mm, Ÿ iPlan-Achromat 100x/1.25 WD 0.30 mm &
			5-position nosepiece tilted back and bjectives
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			secured against unauthorized removal
			8. Condenser: Focusable and centerable Abbe
			condenser 0.9/1.25. With Holder for phase contrast
	n den langua kan dist		and darkfield sliders
			9. Viewing Tube: Viewing and trinocular tubes (50%:50%) with 25° angle and field of view
			22mm. Siedentopf "up and down" position for 2
H 427-4	entra de la companya	1591 7 787	different viewing heights with interpupillary
			distance continuously variable from 48 to 75 mm
			by asymmetric folding of the binocular part Tube
ATTEN AND TO THE			is secured against dropping by special dovetail
			10. Stage: Mechanical reckless stage with long-lived
		To and 1800	stage surface with right-controls. Stage size
	of the House of Justice		185x135, travel range 75x50, With well-readable
The Property	r (Autor Coloradora) (A		vernier and long "Ergonomic" stage drive, With double-slider holder
	Light year graft his and	A Comment of the Comm	11. With power unit integrated into stand with cable
	rtyfelfor losa ibricial lyc		storage at the backside of the stand. Ergonomic
AL Mission		PHILIPPINE	shape for convenient, safe carrying.
		odish des	12. 5V USB port at the back of the stand to connect a
28 July 1586	os men dale svad blis	e routees	power bank or charge mobile device
an sila :	ar mediciyasinee	Property.	13. ECO mode, automatically go into a sleep mode
		, http://dl	after 30min inactivity
			14. Filters: Colour filter set blue, green and yellow
ALCOHOLD WAS	iki i majika, gedi na muulti Akel	Environment of the	15. With Dust Cover & Anti-fungus treated optics
		JA	(Must provide anti-fungus certification from
		AG.	manufacturer).
			16. Camera: Colour camera 8 Megapixels or better,

		pixel count — 3840*2160, exposure range of 0.06 ms to 1 s with a frame rate of 30 fps with a passive cooling system. And should have interfaces — HDMI, USB 3.0 Type C, Ethernet, Micro-D Full 4k Resolution in 30 fps. The camera shall provide an on-screen display (OSD) that allows to control the camera without an extra controller/computer or software. In the OSD, camera parameters and the image file name shall be selected and adjusted via mouse and keyboard. Images shall be stored conveniently on a USB flash drive. The camera shall support both, the operation in stand-alone mode and in combination with a computer and software. The camera shall provide multiple setup possibilities to use it in a wireless mode.  17. Certification: System should be ISO and CE certified. Both microscope and camera should be from same manufacturer.  18. System should come with desktop (All in one desktop:- Intel Core is ,Memory 8 GB ,Hard Disk Drive 1 TB or higher SATA Hard Drive) with data analysis software  19. The system should have minimum 2 years onsite comprehensive warranty from the date of installation.
14.	INVERTED MICROSCOPE	<ol> <li>Modular Illumination (HAL and LED) White LED. Should also have provision to interchange LED with HAL illumination. Halogen illumination should also be included.</li> <li>Contrast techniques Bright field, phase contrast. Upgradeable to Fluorescence</li> <li>Stage details Dimensions: 200 X 239 mm</li> <li>Stage focus Coarse adjustment: 45 mm/rev Fine adjustment: 0.5 mm/rev Stage lift: 15 mm Stage adjustment: Right side</li> <li>Nosepiece turret Nosepiece turret with 4 positions</li> <li>Objectives and objective indicators Objective indicators for fast identification of magnification Recommended Objectives Plan-ACHROMAT 4X/0.10; 10X/0.25 LD Plan-ACHROMAT:</li> </ol>

40X/0.50 Ph.

Condensers Long distance (LD) condenser with NA 0.3 and working distance (WD) = 72 mm. Position for phase sliders to be available with the condenser.

- Binocular tube details Binocular tube with phototube. Field of View: 20 Inter-pupillary Distance: adjustable from 48 to 75 mm Viewing Angle: 45° Viewing Height: 350 to 390 mm Fixed Split: 50% visible, 50% documentation
- 9. Eye pieces 10X/ FOV 20
- 10. Accessories Universal mounting frame -for microwell plates, flasks, Petri dishes
- 11. Camera Colour camera 8 Megapixels or better, pixel count - 3840\*2160, exposure range of 0.06 ms to 1 s with a frame rate of 30 fps with a passive

cooling system. And should have interfaces -HDMI, USB 3.0 Type C, Ethernet, Micro-D Full 4k Resolution in 30 fps. The camera shall provide an on-screen display (OSD), available in at least 3 languages, that allows to control the camera without an extra controller/computer or software. In the OSD, camera parameters and the image file name shall be selected and adjusted via mouse and keyboard. Images shall be stored conveniently on a USB flash drive. The camera shall support both, the operation in stand-alone mode and in combination with a computer and software. The camera shall provide multiple setup possibilities to use it in a wireless mode. 12. Microscope, camera and software should be from same manufacturer 13. The system should have minimum 2 years onsite comprehensive warranty from the date of installation. 15. BIOSAFETY CABINET 01 The Bio safety cabinet should be Type A2 in which LEVEL - II 70% Air should be recirculated and 30% of the air should be exhausted The Bio Safety Cabinet must include two DC motors. The motor must automatically adjust the airflow speed without the use of a damper to ensure continuous safe working conditions, even without maintenance adjustments. In order to preserve safety to the user and the environment, the exhaust blower on the cabinet must continue operating when the supply blower stops working. If the exhaust blower should fail, the supply filter will also be turned off. In order to ensure consistent and reliable down flow velocity across the supply HEPA over the life of the cabinet, the cabinet must use a pressure sensor (rather than anemometer) to detect pressure drop across the supply filter, rather than in just one point across the down flow. The pressure sensor must be encased in order to protect the sensor from temperature, humidity and other environmental phenomena that can impact the sensor's performance. The microprocessor must display the inflow and down flow air velocities in real-time on an LED display to ensure the user knows whether or not the cabinet is working under safe operating conditions. The front window must be a 10" sash opening and be made of laminated safety glass to ensure containment of potentially hazardous samples in the case of accidental glass breakage. All interior and exterior parts must be painted or smooth to ensure no risk of cuts to users or maintenance personnel. The cabinet noise level must be less than 63 dB(A)

for a 4 foot cabinet as measured in a sound proof

(225)

- room 12 inches in front of the cabinet and 15 inches above the work surface.
- 10. The Biosafety Cabinet should have microprocessor controller and same must be located on a slanted front panel so it is easy to see and reach from a seated working position in front of the cabinet.
- 11. The interior of the front window must be accessible for cleaning without requiring the user remove or support the window.
- 12. The cabinet must automatically reduce fan/blower motor speed to 30% when the front window sash is in closed position to ensure reduced energy consumption when the cabinet is not is use.
- 13. In order to provide maximum effectiveness, efficiency and safety to laboratory Personnel, UV light must be programmable to allow for specific exposure times from 0 to 24 hours. The automatic shut off feature on the UV light saves money on replacement of the bulbs.
- 14. The Cabinet should have provision to fit taps for Vacuum, Water and Non-Combustible Gas.
- 15. The Bio safety Cabinet should be NSF certified with listing on NSF website.
- 16. Cabinet should have individual sticker of NSF Certification along CE certificate.
- 17. The Bio safety cabinet should incorporate HEPA filter of the class H 14 EN 1822 or better and having minimum efficiency of 99.995% at 0.3 μm particle size.
- 18. Approximate Dimension: Exterior 1500 H x 1300 W x 800 D; Interior 800 H x 1200 W x 500 D.
- 19. Ventilation System Exhaust and Inflow air volume approx 300-350 CFM
- 20. Heat Emissions at 25°C should be approx 0.2 KW or lesser.
- 21. The BSC must incorporate an LED Indicator to indicate filter loading and should provide visual and audible alarm to indicate excessive HEPA filters loading which can result in unsafe airflows deviation from the NSF recommended inflow and down flows air velocity values measured in meters per second or foot per minute.
- 22. The cabinet should be provided with fixed / adjustable Height Stand, UV Light and one set of detachable arms rest and electrical outlet.
- 23. The Drain Pan of the BSC should be made of Stainless Steel. The drain pan should not be painted or power coated.
- 24. The Bio safety cabinet should have dual side wall with negatively pressurized interstitial space. Bio Safety Cabinet with single glass side walls should not be quoted.
- 25. The system should have minimum 2 years onsite comprehensive warranty from the date of installation.

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PENE	report on South bloods (South )	days ==	
16.	ELISA READER	01	1. Read-out Range: 96 Well Plate; 384 Well Plate
	los de tades a cherro morti del	R 1949	Measurement Technology: Absorbance     Plate Type: 96 and 384 well plates
	to the call stronger small	d Grane	<ul><li>3. Plate Type: 96 and 384 well plates</li><li>4. Software Type: Internal software or PC control</li></ul>
		9-38)	with Software
	ali obeita setekteristen est Bateris over dit sedia dilla		5. Wavelength Selection: Filters
	그렇게 되면 사용하는 사람들이 가게 들어지지 않아 되었다.		6. Wavelength Range: 340-850 nm
	as, os ten a Mercijo pra esel. Ozofie – remekser – akorolir.	A PRODUCT	7. Photometric Linearity: 0-3 Abs, ± 2%, 96-we plate, 450 nm
	er ne sil o miguesel que co <mark>ses</mark> Por su éléctric industries pour		8. Accuracy (Photometric): ± 1% (0–3 Abs) or ±0.00 Abs, 450 nm
		1	9. Precision: CV ±0.2% (0.3–3 Abs), 450 nm
	en soles jetsk VII i na Gelle Engelski	toral I	10. Incubator Temperature: From ambient + 4°C up t
	at a conversion shed frough	stagi (ili	11. Shaking: Linear shaking
	reviewed terrors model ( a	1.51 A 1.51 1.51 A 1.51	12. Measurement Speed: 7 s, 96-well plate (fast mode 13 s, 384-well plate (fast mode)
	ones last Laste lastelas aust l		<ol> <li>USB Connections: USB for computer connection data export and external printer</li> </ol>
	wash da 10 ani Sarah da 18 an	1 - 2 - 2 - 4 - 1	14. Application: ELISA, enzyme activity, protei
		300	quantification, endotoxin, cytotoxicity an proliferation assays, enzyme assays and growt
		31.0	15. The system should have the control of the system should have the control of t
	11 OGRUS VERSKALLEN ERREREN 1905 in Wigolf in 15 1008 geno	e Arel	15. The system should have minimum 2 years onsit comprehensive warranty from the date of installation.
7.	UV/VS	01	1. Control: System should have High Definition 7
	SPECTROPHOTOMETER		touch screen control
		7	2. Detector Type: Dual Silicon Photodiodes
	niārii (Carima serva kom)		<ol> <li>Power: External AC to DC converter. Voltage and Frequency (Hz) selected automatically, 100–24</li> </ol>
	sheema biglate las emiliari	1 - 7 - 7	volts, 50–60 Hz.
	az megnaza estebahati mendakk Englesia en Areksantija elgisak		4. Lamp: Xenon Flash Lamp /or any equivalent lam
	Par Sphaggaren 1825 ich.		5 Ontirel De la Dalay
	rationerses asker grafted	Markers	<ul><li>5. Optical Design: Dual Beam or better</li><li>6. Spectral Bandwidth: 2 nm or better</li></ul>
			7. Wavelength Accuracy: ±0.5 nm or better
	l dina ushrang sa mbian kin oro nga 1-2 Lawanisa		8. Wavelength Data Interval: 0.2 nm, 0.5 nm, 1 nm 2 nm, 5 nm or better
et et e	or Set Sounds (1881) Set 16.	er a diri Sa disa	9. Wavelength Range: 190 nm – 1100 nm or better
110	Laderia Blumba nem sodin sidil	155/4	10. Wavelength Repeatability: <±0.2 nm or better
		gigar Y	<ul> <li>11. Photometric Range: -2A to +3.5A or better</li> <li>12. Photometric Repeatability: ±0.001A at 1A or</li> </ul>
	ev landsmert langer bendur-		better tepeatability. ±0.001A at 1A 0
	en antibasi berbakan). Tiky don kongrinsikan		13. Stray Light: < 1.0%T 198 nm (KCl) or better
			<0.05%T at 220 nm (NaI) or better, <0.03%T at
unalis	riese I germanen best blin	(g-3-9)	340 nm (NaNO2) or better 14. Baseline Flatness: ±0.002A or better
	al of rest standing	DVIVIEW.	15. Wavelength Scan Speed: Slow, medium and fast –
		. 502	minimum up to 1600 nm/min or better
			16. Connections: Single USB supports flash memory
			10. Connections. Single OSD supports trash memory
	The state of the s		devices for method and data storage,
The Walk			devices for method and data storage,  17. USB on side supports connection to a Windows <sup>TM</sup> computer running

0			installation.
8.	ULTRA CENTRIFUGE	01	1. Speed: 100,000 rpm RCF :> 750,000 x g
			2. Maximum Capacity: 6 x 250 mL
			3. Drive System: Imbalance tolerant direct drive; eye
			balance to within 5 mm Control: Microprocessor
			Control Panel: Touch screen colour LCD panel
			4. Programmability: 1,000 programs with step-runs
			Run Log Database: Up to 5,000 runs recorded in
			onboard memory
			5. Data Communication: USB: Host x 1, Device x 1/
			LAN x 1 Accel/Decel Profiles: 10/11 (10 and
			coasting) Speed Range: 1,000 rpm to max. Speed
			in 100 rpm increments Speed Control Accuracy:
			±10 rpm (1,000 rpm – max. speed)
			6. Timer: 1 min to 999 hours 59 min (with 1 min
			increments) with HOLD function
			7. Temperature Set Range: +2 to +40 °C
			Temperature Accuracy: ±0.5 °C  8. Ambient Temperature Range: ±10 to ±30 °C
			8. Ambient Temperature Range: +10 to +30 °C Temperature
			9. Control System: Solid-state thermoelectric module
			refrigeration (CFC/HCFC/HFC-free) Vacuum
			System: Oil-rotary vacuum pump with moisture removal function and oil diffusion pump; vacuum
			of 0.13 Pa Rotor tracking: Yes Step-by-step
4.			zonal/CF
			10. Operation screens: Yes Drive
			11. Cooling: Air-cooled Functions- Automatic RCF;
			ω2dt integrator; real time control; controlled user
			access; rotor life management Dimensions (H x W
			x D): 880 x 790 x 690 mm/ 34.6 x 31.1 x 27.2 in
			Work Height of Top Deck: 863 mm/ 33.9 in
			Weight: 390 kg/859.8 lb
			12. Heat Output: 1 kW or below
			13. Noise: 51 dBA
			14. Should have Self-locking rotor system provides
			confidence that the rotor is automatically and
			securely locked
4			15. Should have the facility to monitor instrument
- 4			status from across the lab with Stat Light, our
			multi-colour, programmable >40cm long LED
		7.	16. Should supports labware from microtubes to
			250mL bottles providing applications flexibility
			17. Certification: CE and cCSAus
			18. The system should have minimum 2 years onsite
			comprehensive warranty from the date of
			installation.