

**GANGADHAR MEHER UNIVERSITY,  
Amruta Vihar, Sambalpur-768004**



NOTICE

No. 994 /GMU

Date: 13/2/19

**TENDER CALL NOTICE**

Gangadhar Meher University, Sambalpur invites sealed tenders in two-bid system (Technical and Financial bid) from the registered and reputed Firms / Manufacturers / Authorized dealers / Suppliers for supply of **Equipment** to different Departments of G.M. University to be **purchased under the RUSA grant**. The interested firms may submit their sealed tenders super-scribing "**Tender for supply of Equipment Under RUSA grant to different Departments of G.M. University, Sambalpur**" addressed to **The Registrar, G.M. University, Amruta Vihar, Sambalpur-768004** by **Speed Post /Registered Post only on or before 3.00 pm of 06.03.2019 positively**.

The authority reserves the right to accept or reject any or all the tenders without assigning any reason thereof. Any changes to this tender call notice will only be notified in the University website. For more details please visit the university website [www.gmuniversity.ac.in](http://www.gmuniversity.ac.in)

REGISTRAR  
GANGADHAR MEHER UNIVERSITY  
SAMBALPUR

Memo No. 995 /GMU

Dt. 13/2/19

Copy to Vice Chancellor's Guard File/Registrar's Guard File/Deputy Registrar and RUSA Co-ordinator/COF/AC /Purchase Officer/OIC Stock and Store/Purchase Assistant for information and necessary action.

REGISTRAR  
GANGADHAR MEHER UNIVERSITY  
SAMBALPUR

Memo No. 996 /GMU

Dt. 13/2/19

Copy to Editor The Samaj / The Sambad / Dharitri/ The Indian Express with a request to publish the same in the News paper on 14-02-19

REGISTRAR  
GANGADHAR MEHER UNIVERSITY  
SAMBALPUR

**TENDER NOTICE FOR EQUIPMENT UNDER RUSA GRANTS,**  
**G. M. UNIVERSITY, AMRUTA VIHAR, SAMBALPUR**

Separate sealed tenders are invited from reputed registered firms/ manufacturers/ authorized dealers for the supply of equipment under RUSA grants to G.M. University, Sambalpur, Odisha-768004.

The details, tender form, format of agreements etc., can be downloaded from university web site [www.gmuniversity.ac.in](http://www.gmuniversity.ac.in) Completed tenders should be submitted along with tender paper fee of Rs.200/- per item and EMD @ 2% of the quoted amount must be paid through IMPS/NEFT/RTGS mode only in the following account details.

Name of the Account Holder	M/S G M U ADMISSION FUND
Account No.	520141001627645
Bank Name with address	CORPORATION BANK, 54, G.M. College Road, Sambalpur, Odisha-768004
IFSC Code	CORP0001450
MICR Code	768017002

The bids for the equipments mentioned in the **Annexure I (Two-Bid System)** should be submitted to **"The Registrar, G.M. University, Amruta Vihar, Sambalpur-768004, Odisha"**.

**ANY CHANGES TO THIS TENDER CALL NOTICE WILL ONLY BE NOTIFIED IN THE UNIVERSITY WEBSITE.**

**The mode of procurement unless otherwise specifically stated shall follow GFR norms.**

1. Last date and time for the receipt of completed tenders (Technical & Financial Bid): **3.00 P.M on 06.03. 2019.**
2. Date and time of opening of Technical Bids of two-bid system: **11.30 am on 07.03.2019**
3. Venue: **Office of the Registrar G.M. University , Amruta Vihar, Sambalpur-768004**
4. Publication of list of technically qualified bidders for equipments in the University website: **08.03.2019**
5. Technically qualified tenders alone will be considered for financial bid.
6. Date and time of opening of the Financial Bid: **11.30am on 09.03.2019.**

  
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**SAMBALPUR**

## **ATTACHMENTS /ENCLOSURES**

**ANNEXURE I: LIST OF EQUIPMENTS**

**ANNEXURE II: ELIGIBILITY CRITERIA AND GENERAL TERMS AND CONDITIONS**

**ANNEXURE III: TENDER FORM – TWO-BID SYSTEM (PART I – TECHNICAL BID)**

**ANNEXURE IV: TENDER FORM – TWO-BID SYSTEM (PART II- FINANCIAL BID)**

**ANNEXURE V: TECHNICAL SPECIFICATIONS**

**ANNEXURE VI: CERTIFICATE FROM THE VENDOR STATING THAT THE COMPANY HAS NOT BEEN BLACKLISTED BY ANY GOVERNMENT ORGANISATION**

**ANNEXURE VII: MANUFACTURER’S AUTHORIZATION FORM (MAF)**

**ANNEXURE VIII: THE AGREEMENT IN STAMP PAPER (FOR THE SUCCESSFUL BIDDER)**

**ANNEXURE A: PRICE BID FORM**

**ANNEXURE B: INFORMATION SHEET**

  
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GANGADHAR MEHER UNIVERSITY  
SAMBALPUR**

**CHECK LIST (TO BE FILLED COMPLETELY & PLACED ALONGWITH TECHNICAL BID**

S. No.	Points to be verified	Yes/No
1	Technical specification compliance sheet	
2	Tender Application fee	
3	EMD	
4	Photocopy of PAN card	
5	User list and certificates issued by clients	
6	Copies of income tax return/clearance certificate	
7	GST registration certificate	
8	GST Clearance certificate	
9	All other certificates as asked in tender document	
	a) Spare part availability certificate	
	b) Certificate indicating country of manufacture	
	c) Copy of "Eligibility Criteria and General Terms and Conditions" signed and stamped on each page	
	d) Annexure VI	
	e) Annexure VII	
	f) Annexure A (Price Bid Form)	
	g) Annexure B ( Information sheet)	
	h) Any other items necessary	

  
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**SAMBALPUR**



LIST OF EQUIPMENTS

Equipments to be installed at Laboratories on the Campus of G.M. University, Sambalpur

S. No.	Name of equipment
1.	Hall coefficient set up
2.	Boltzmann constant set up
3.	Dielectric constant set up
4.	Solenoid Magnetic Field Measurement Apparatus
5.	Magnetic susceptibility set up
6.	CRO
7.	Cryogenic storage(-60 <sup>0</sup> C)
8.	Refrigerated centrifuge (20 K RPM)
9.	Water Purification System Millipore
10.	Distillation unit
11.	Dispenser Digital
12.	Digital Burette
13.	Binocular LED vision Microscope
14.	Digital Microscope with a digital camera and software
15.	Fluorescence zoom microscope with digital camera
16.	UV Trans-illuminator
17.	Horizontal gel electrophoresis 24 well
18.	Vertical gel electrophoresis 24 well
19.	Gel documentation system
20.	Vacuum Pump
21.	Conductivity TDS meter
22.	Digital Electronics Balance
23.	Digital Potentiometer
24.	FT IR Spectrometer
25.	UV-Vis-Spectrophotometer
26.	Thermal Cyclor
27.	Electrophoresis
28.	Ultra Centrifuge
29.	Incubator
30.	Automatic Microtome
31.	HPLC Unit
32.	Atomic Absorption Spectrophotometer
33.	Motionlogger Micro Watch Kit
34.	Digital Sound Level Meter
35.	Luxmeter with Battery/carry case
36.	Automated Nucleic acid Purification System

**ELIGIBILITY CRITERIA AND GENERAL TERMS AND CONDITIONS****1. GENERAL TERMS & CONDITIONS:**

- i) The tender should be submitted in prescribed form downloaded from the university website [www.gmuniversity.ac.in](http://www.gmuniversity.ac.in). The cost of tender forms will not be refunded under any circumstances.
- ii) *For those bidders submitting tenders for more than one equipment, separate Tender applications for each equipment (Technical Bid and Financial Bid) must be placed in individual sealed envelopes and these envelopes must be placed inside a bigger envelope. Separate tender forms are to be used for each item. Only one model can be quoted in a tender.*
- iii) The tenders for equipment of Annexure-I should be submitted in the form of two-bid system.
  - a. Technical bid consisting of tender cost, EMD & all technical details like catalogue, literature, accessories, authorization letter, price list etc., along with commercial terms & conditions.
  - b. Financial bid indicating the item wise prices for the equipment mentioned in the Technical bid sealed separately.

Both the bids should mandatorily be in two separate sealed envelopes. Financial bids of technically acceptable offers alone would be considered for further evaluation and scrutiny. These two envelopes should be kept in a third sealed envelope and submitted to the office. **Failure to comply with these conditions shall lead to non-consideration of the bid.**

- iv) The sealed cover containing the tender of TWO-BID SYSTEM should be superscripted "Tender No..... TENDER FOR SUPPLY OF ..... (ENTER NAME OF EQUIPMENT with serial number) last date of submission, dates of opening of Technical Bid and Financial Bid" as indicated above and should be addressed to the Registrar, G.M University, Amruta Vihar , Sambalpur-768004, Odisha.

Each tender should be accompanied by proof of the payment (the receipt of IMPS/NEFT/RTGS) of [(1) Tender cost Rs.200/- per item (equipment) and (2) EMD (2%) of the quoted amount] paid in prescribed mode only as mentioned in the page no.1

- v) Late and incomplete tenders and tenders without EMD, tender fee will not be accepted.
- vi) If the last date of submission of tenders is declared holiday in G. M. University, Sambalpur, the date of submission and tender opening will be next working day.

  
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 GANGADHAR MEHER UNIVERSITY  
 SAMBALPUR



- vii) Firms which are exempted from payment of EMD should furnish attested copy of the currently valid certificate to that effect issued by the competent authority.
- viii) The cost of the item, tax and other charges should be separately stated.
- ix) The exact specifications, details of make, model, name of manufacturer, warranty details etc. of the item must be clearly specified. Original brochures with detailed technical literature and illustrations of the units quoted are to be attached with the offer. Details of trainings offered, warranty, maintenance service contract offered after expiry of normal warranty, spare parts availability and after-sales-service facilities available should be indicated. Offers without these are liable to be rejected.
- x) Details of warranty offered should be clearly stated in the tender.
- xi) Validity of the tender should be for a period of one year. Period of firmness of the quoted prices should be clearly stated in the offer. The domestic bidders are to quote and accept their payment in Indian currency. However, the Indian authorized agents of foreign Principals may quote in foreign currency (currencies) for equipments which are directly imported against the contract and shall be paid accordingly in that currency; and the portion of the allied work and services, which are undertaken in India are to be quoted and shall be paid in Indian currency.
- xii) The Registrar of G.M. University reserves the right to accept/reject any or all tenders, at any time without assigning any reason thereof.
- xiii) Tenders must accompany a copy of the "List of equipments cum Eligibility Criteria and General Terms and Conditions" section of this document, signed and stamped on each page indicating that they agree to these conditions.
- xiv) Successful bidder on confirmation of the tender will have to **furnish a performance security of 5% of the total cost of the equipment and execute an agreement (Annexure VIII) in Stamp paper worth Rs.100/-**
- xv) Withdrawal of tenders after its acceptance or failure to supply the equipments during the specified period will entail cancellation of the tender and purchase will be affected from elsewhere at the expense of the contractor. In such events, the G.M. University reserves the right to remove the defaulters name from the list of the University suppliers permanently.
- xvi) The article should be of good quality, properly packed and in conformity with the item quoted in the tender. If the article is found to be of inferior quality or not in conformity with the specifications as per tender, it will be summarily rejected and the bidder will have to take back the material at his cost within 15 days of intimation.
- xvii) In case when the successful bidders having made partial supplies fail to fulfill the contract in full, all or any of the material not supplied will be purchased by means of negotiation or from the next lowest bidder who had offered to supply already and the loss if any, caused to the University together with such sum as may be fixed by the University towards the damages, shall be recovered from the defaulting bidder.
- xviii) Apart from all these terms and conditions, specific terms as specified for each

instrument must also be complied with.

- xix) The warranty period for the equipment should be for a **minimum period of three years** from the date installation, unless and otherwise specified. **Additional 2 years of AMC/CMC, should be included in the offer.**
- xx) The bidding firm should be an International Organization of Standardization (ISO) certified company and the manufacturing products should comply with Indian/ International standards.
- xxi) The company should not have been under active blacklisting by any Government organization on the date of determination of the tender. The University reserves the right to terminate the contract at any stage if a blacklisting on default in a product of relevance is reported during the contract.
- xxii) Client list (with all contact details) and authentication of vendor's business record in the form of Income Tax return for, at least, of last 3 years should be enclosed along with the offer.
- xxiii) Validity of the tender will be for one year and extendable by mutual consent.
- xxiv) For imported equipments authorized dealers should ensure prompt servicing of the equipment and must submit a certificate from the Principals stating that they are the sole dealers of the company's product in India.
- xxv) The high quality imported products must be matched by high quality and reliable local support for installation and after sale. The Indian agent must have a team of Service Engineers, trained by foreign manufacturer, detailed service manuals and a stock of commonly required spares, consumables and small accessories.
- xxvi) For application support a local laboratory / agency office should be available for periodic training, solving analysis problems, library of books and references. Periodic training is an essential requirement and Indian agent must arrange at least two trainings in their own lab or in customer's lab.
- xxvii) Technical features described above should be supported by original illustrated catalogue and web based support.

## **2. PREPARATION OF THE TENDER:**

- i) The tender no., name of equipment with serial number and due date should invariably be superscripted on the envelope.
- ii) **PREQUALIFICATION CRITERIA FOR TWO-BID** ; The firms submitting tenders for equipments under **two-bid** should fulfill the following minimum pre-qualification criteria listed below:
  - 1) Minimum Average Annual Turnover of the bidder over the last three years shall be equivalent to or greater than **Rupees 50 lakh.**
  - 2) Bidder shall be the manufacturer or authorized by the manufacturer for the equipments



- quoted. Bidder (if not original manufacturer) shall provide authorization certificate from the manufacturer for dealing the product in India, assuring service and maintenance.
- 3) Should enclose client list along with the offer (with all contact details) and authentication of vendor's business record in the form of Income Tax return of, at least, last 3 years.
  - 4) Bidder shall have Original Equipment Manufacturer (OEM) trained technical staff stationed at Sambalpur/Bhubaneswar/ Nearest City for ensuring proper after sales support. Specific contact details of such staff shall be furnished.
  - 5) The Bidder should have a local support office in India for immediate support.
  - 6) The manufacturer should be in the same business for the last 5 years.
- iii) The proposals for equipments of Annexure –I shall be submitted in two parts, viz. **Technical bid (Annexure-III) and Financial bid (Annexure-IV & Price bid form in Annexure-A) in two separate sealed envelopes** (with respective marking superscripted in bold) for tenders invited under two-bid system.
- iv) The first envelope (envelope 1) marked **"Technical bid"** should include the technical specifications. The first envelope should not contain any cost information whatsoever.
  - v) The second envelope (envelope 2) marked **"Financial bid"** should contain the detailed price offer in prescribed format.
  - vi) Both the sealed envelopes Technical bid and financial bid should be placed in a third bigger sealed cover. The cover must also contain Name and Address of the bidder, telephone and other contact details for further correspondence.
  - vii) The specification contained in Annexure III represents the minimum specifications for qualifying in the Technical Bid.
  - viii) The tender competing successfully in technical evaluation will only be opened or considered for financial evaluations. The price envelopes of others will not be considered. At second stage, financial bids of only technically acceptable offers will be opened for further evaluation and ranking before awarding the contract.
  - ix) The financial proposal shall be opened in the presence of the bidders or their representative who attend. The prior information in this regard will be published in the website. No separate communication will be sent normally.
  - x) Quoting merely the lowest price does not confer any right to any bidder for award of supply order. The University level Purchase Committee/ competent authority, reserves the right to select any bid under the grounds of specification compliance, technologically advanced quality, proven performance track record, brand reputation, service backup support, additional warranty, offer of additional / special features, compatibility with the existing system, training, buyback offers etc.
  - xi) 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.

### 3. DELIVERY OF THE TENDER

- i) All tender documents should be addressed to the respective authorities mentioned in the tender notice.
- ii) No responsibility with regard to postal delays due to any reason whatsoever will be accepted.

### 4. OPENING OF THE TENDERS

- i) Unless otherwise postponed with advance intimation to the bidders, tender will be opened in the place as mentioned in the tender notice on the date and time indicated in first page of this tender document.
- ii) **Two-bid system**  
**PART-I (TECHNICAL BID)** of the tender will be opened as the first stage on the due date and time indicated in the first page of this tender document while, the **PART-II (FINANCIAL BID)** will be opened as the second stage on the due date and time indicated in the first page of this tender document.
- iii) While all the bidders who submit tenders within the due date and time specified for its receipt will be permitted to participate in the opening of **PART-I (TECHNICAL BID)** of the tender on the due date and time indicated in this tender document, opening of the **PART-II (FINANCIAL BID)** of the tender can be attended only by those bidders whose tenders are found to be technically suitable/acceptable to the University.
- iv) The technically unqualified bidders will neither be given any intimation nor will they be permitted to participate in the opening of the **FINANCIAL BID (Part-II)** of the technically disqualified bidders will not be opened.
- v) The bidders who wish to participate in the opening of the tenders may depute their representatives to the specified place on the respective due date, time and venue as indicated in this tender document, with an authority letter addressed to the Registrar, G.M University, Sambalpur which should be produced to the officers who are opening the tenders, on demand, to prove the bonafides of the representative who participates. In case the representative of the bidder fails to produce such an authority letter on behalf of the bidder, he will be debarred from participating in the opening of the tenders.
- vi) The bidder's representative, who reaches the venue of the tender opening late, i.e. after the starting time specified for opening of the tenders, may not be allowed to take part in the tender opening. It should be noted that only one representative of each bidder will be permitted to participate in the tender opening.

### 5. EVALUATION OF BIDS RECEIVED:

- i) The Technical committee and Purchase committee has the full right to evaluate, segregate, rank the responsive bids and select the successful bidder for placement of the contract. Any decision by the Technical committee and Purchase committee in this regard will be final.
- ii) No legally enforceable right is vested in the quoted party merely because it was ostensibly the lowest bidder.

  
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**6. BID SECURITY:** Earnest money as mentioned in the document will be collected from the prospective bidders through IMPS/NEFT/RTGS mode only as mentioned in the page no.1 of the bid document. Tenders without EMD will be considered unresponsive and rejected. Suppliers/Manufacturers registered with Director General of Supplies & Disposals (DGS&D), National Small Industries Corporation (NSIC) and Govt. approved sources are exempted. However, they must produce relevant certificate issued by the competent authority for the equipments they manufacture.

#### **7. PERFORMANCE SECURITY**

- i) A performance security of **5% of the value of contract** will be obtained from the successful bidder awarded with the contract through IMPS/NEFT/RTGS mode only as mentioned in the page no.1 of the bid document or Bank guarantee from a commercial bank which should be valid for a period of 90 days beyond the completion of all contractual obligations of the bidder including warranty. Performance security will be forfeited and credited to the University account in the event of breach of contractual obligation by the bidder, in terms of relevant contract.
- ii) Bid Security will be refunded to the successful bidder on receipt of performance security. The University will pay no interest for the deposit.

#### **8. DELIVERY, INSTALLATION AND WORK COMPLETION**

The delivery, installation of equipments / materials and final commissioning shall be made within stipulated time period as given in the supply/work award letter. Otherwise it will attract penalty. In the case of imported items, the Principal/their Indian Agent shall be responsible for delivery of the equipments / materials from the place of discharge of equipments / materials to the final point specified.

#### **9. PRICE AND DELIVERY**

- i) Prices are to be quoted **FOR DESTINATION** for Indian make equipment. The prices quoted should clearly indicate the following charges: Price of the equipment; tax and other charges (if any).
- ii) The prices quoted must be **FIRM** and preference will be given to such tenders.
- iii) The Delivery Schedule, Payment Terms & Warranty/Guarantee etc. must be clearly indicated in the Technical Bid. The charges for extended warranty and/or Annual Maintenance Contract after the expiry of offered warranty period should also be specified in the Financial Bid.
- iv) The manufacturers' printed literature/catalogue/drawing/user's list in respect of model of the product being quoted should also be submitted with the offer.
- v) The supply of items of approved specifications shall have to be made strictly as per given delivery schedule on placement of order, failing which, the material may be rejected and returned at the expenses of the supplier.
- vi) The firms shall be required to arrange demonstration of the offered item. The supplier must ensure onsite training and wet-lab training wherever necessary for method development, calibration, validation, application training to the concerned scientific staff of G.M. University, Sambalpur and day to day maintenance of the system
- vii) Warranty: Three years warranty should be offered for the complete lists of equipments.



Additional 2 years AMC/CMC, should be included in the offer.

viii) Vendor should have residential engineer in Odisha / Nearest City in India and should have application support and training centre in India for immediate support.

**10. PAYMENT:** Proforma Invoice of the manufacturer should be enclosed along with complete terms & conditions. The payment terms FOR destination are 100% on receipt and acceptance of goods by the University and on production of all the required documents by the bidder. However, in exceptional conditions from case to case University will adopt appropriate stand for mode of payment.

**11. WARRANTY:** Any defective goods should be replaced or repaired by the supplier free of charge. Delivery of goods and it's installation during part repair/replacement should be free of charge. A warranty certificate declaring these points must be supplied with the technical bid.

**12. MAINTENANCE CONTRACT:** Provision for two years warranty period and AMC/CMC should be specified. The instrument or machinery is maintained by the bidder during warranty period or such other extended periods as the contract terms may provide and the paid maintenance should commence only, thereafter. If the supplier fails to deliver the goods and / or perform the services within the contractual delivery period for reasons other than circumstances beyond supplier's control (which will be determined by the University) and the University extends the delivery period, a sum equivalent to 0.5% (half percent) of the delivered price of the delayed goods or unperformed services for each week of delay or part thereof will be deducted from the contract price of the delayed, until actual delivery or performance. The maximum limit of such deduction will, however, be 10% (ten percent) of the contract price of the delayed goods or services.

**13. GST REGISTRATION CERTIFICATE:** Tender applications must be accompanied by duly attested Photostat copy of the GST registration.

**14. INCOME TAX:** Photostat copy of the income tax clearance certificate for the last three years and a copy of PAN should be provided.

**15. INSURANCE:** The goods supplied shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery. The insurance shall be valid for a period of not less than 3 months after installation and commissioning.

  
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## TENDER FORM PART-I (TECHNICAL BID)

PART-I (TECHNICAL BID) OF TENDER No.	
Last date for receipt	
Due date for opening Part -I (TECHNICAL BID)	
Bidder's Offer No	
Date:	
From: M/s	
To:	
<p>Dear Sir,</p> <p>I/We have gone through the tendering conditions pertaining to the Tender and General Conditions of Contract and Special Conditions of Contracts contained herein with this tender document. I/we hereby agree to supply the stores conforming to the tender specifications incorporated in <b>ANNEXURE V</b> of the tender document and also agree to abide by your General Conditions of all Contracts and Special Conditions of Contract contained in the ANNEXURE II of the Tender document.</p> <p>You will be at liberty to accept the items of stores offered by us and I/we shall be bound to supply you the stores as may be specified in the Purchase Order/Contract.</p> <p>I/We hereby agree to keep the price valid for your acceptance for a period of -----</p> <p>from the date of opening of Part-II (Financial bid) of the tender</p> <p>I/We are also enclosing herewith all the leaflets catalogue etc. pertaining to the stores offered.</p> <p>Yours faithfully</p> <p>Stamp and Signature of the bidder</p>	

  
 REGISTRAR  
 RAJGADHAR HIRDE UNIVERSITY  
 RAJGADHAR

## TENDER FORM (TWO-BID SYSTEM) PART-II (FINANCIAL BID)

PART-II (FINANCIAL BID) OF TENDER No.:	
Last date for receipt:	
Due date for opening Part –II (FINANCIAL BID):	
Bidder's Offer No:	
Date:	
From:	
M/s	
To:	
Dear Sir,	
In response to your invitation and as per your tendering and contracting conditions, the prices applicable for the scope of supply contained in Part-I (TECHNICAL BID) of our tender are indicated in the format at <b>Annexure "A"</b> to this tender.	
We hereby agree to keep the price valid for your acceptance for a period of -----from the date of actual opening of Part-II (FINANCIAL BID) of the tender.	
Yours Faithfully,	
Stamp and Signature of the bidder	



**TECHNICAL SPECIFICATIONS  
ANNEXURE V (Two-bid system)**

Separate sealed tenders for the following equipments are to be submitted to **The Registrar,  
G.M. University, Sambalpur, Odisha-768004**

See Attachment (Equipment specifications)

**TECHNICAL SPECIFICATIONS AND COMPLIANCE SHEET TO BE PROVIDED BY THE BIDDER**

S. No.	Name of the Equipment	Specifications	Complied/Not Complied	Deviations from tender Specifications (Explain how better this is from tender specification)

  
 REGISTRAR  
 GANGADHAR MEHER UNIVERSITY  
 SAMBALPUR

**CERTIFICATE FROM THE VENDOR STATING THAT THE COMPANY HAS NOT BEEN  
BLACKLISTED BY ANY GOVERNMENT ORGANISATION**

To:

The Registrar  
G.M. University, Amruta Vihar  
Sambalpur, Odisha

Dear Sir,

This is to certify that M/s \_\_\_\_\_ has not been  
blacklisted .....by any Government Organization  
at the time of submission of the tender document or before.

Yours faithfully,

Authorized Signatories  
(Name & Designation)

Date:

For and on behalf of M/s \_\_\_\_\_

**Note: This letter of authority should be on the Letter-Head of the manufacturing  
concern and should be signed by a competent person of the manufacturer.**

**MANUFACTURER'S AUTHORIZATION FORM (MAF)**

To:

The Registrar  
G. M University, Amruta Vhiar  
Sambalpur, Odisha

Tender Reference: \_\_\_\_\_

Dear Sir,

We \_\_\_\_\_, who are established and reputed manufacturers of \_\_\_\_\_, do hereby authorize M/s \_\_\_\_\_ (Name and address of the Agent/ Dealer) to offer their quotation, negotiate and conclude the contract with you against the above invitation for tender offer.

We hereby extend our full guarantee and warranty as per terms and conditions of the tender and the contract for the equipment and services offered against this invitation for tender offered by the above firm.

Yours faithfully,

Authorized Signatories  
(Name & Designation)

Date:

For and On behalf of M/s \_\_\_\_\_ (Name of Manufacturers)

Note: This letter of authority should be on the Letter-head of the manufacturing concern and should be signed by a competent person of the manufacturer.

  
REGISTRAR  
GANGADHAR MEHER UNIVERSITY  
SAMBALPUR



**AGREEMENT****(To be executed in hundred rupees stamp paper)**

Articles of agreement executed on this \_\_\_\_\_ the day of \_\_\_\_\_ between the Registrar of the G.M University, Sambalpur (hereinafter referred to as "the GMU") on the one part and Shri \_\_\_\_\_ (Name and address of the tenderer) (hereinafter referred to as "the bounden" on the other part.

WHEREAS in response to the notification No. \_\_\_\_\_ dated \_\_\_\_\_ bounden has submitted to the GMU a tender for the \_\_\_\_\_ specified therein subject to the terms and conditions contained in the said tender;

WHEREAS the bounden has also deposited with the GMU a sum of Rs. \_\_\_\_\_ as Earnest Money for the execution of an agreement.

NOW THESE PRESENTS WITNESS and it is hereby mutually agreed as follows:

1. As the tender submitted by the bounden is accepted by the GMU and the contract for \_\_\_\_\_ is awarded to the bounden, the bounder shall execute an agreement with the GMU incorporating all the terms and conditions under which the GMU accepts his tender, within.....days.
2. In case the bounden fails to execute the agreement as aforesaid incorporating the terms and conditions governing the contract the GMU shall have power and authority to recover from the bounden any loss or damage caused to the GMU by such breach as may be determined by the GMU by appropriating the earnest money deposited by the bounden and if the earnest money is found to be inadequate the deficit amount may be recovered from the bounden and his properties both movable and immovable in the manner hereinafter contained.
3. All sums found due to the GMU by virtue of this agreement shall be recoverable from the bounden and his properties both movable and immovable under the provisions of the Revenue Recovery Act 1968 for the time being in force in the same manner as arrears of public revenue due on land and in such other manner as the GMU may deem fit.

In witness whereof Shri \_\_\_\_\_ (Name of the Registrar) for and on behalf of the GMU and Shri \_\_\_\_\_ the bounden have hereunto set their hands the day and year shown against their respective signatures.

Signed by Shri \_\_\_\_\_ (date) \_\_\_\_\_ in the presence of witnesses:

1. \_\_\_\_\_
2. \_\_\_\_\_

Signed by Shri \_\_\_\_\_ (date) \_\_\_\_\_ in the presence of witnesses:

3. \_\_\_\_\_
4. \_\_\_\_\_

PRICE BID FORM

To;

The Registrar  
Gangadhar Meher University  
Amruta Vihar, Sambalpur  
Pin-768004

Dear Sir,

1. I/We ..... submitted the bid for Tender No.....  
Dated..... for "Supply of Equipment under RUSA grant" at Gangadhar Meher University, Sambalpur, Odisha-768004.
2. I/We thoroughly examined and understood instructions to tenders, scope of work, terms & conditions of contract given in the tender document and those contained appendix of Terms & Conditions of contract and agree to abide by them.

I/We hereby offer to supply of Equipment at the following rates. I/We undertake that I/We are not entitled to claim any enhancement of rates on any account during the tenure of the contract.

Description of item: -

Sl. No	Name of Equipment/ Specification (Model if any )	Qty. in Unit	Unit Price in Rs.	Discount (If any)	Excise Duty/ Custom Duty (If any)	GST	Total Price in Rs.

Delivery Mode: Delivery at Gangadhar Meher University, Sambalpur, Odisha-768004 at site only.

Total bid price should be inclusive of all taxes and levies, transport, loading, unloading etc.

Warranty Period: .....

Delivery Period: ..... days

Sign of the Bidder

Date:

Name of the Bidder:-

Name of the Firm

  
REGISTRAR  
GANGADHAR MEHER UNIVERSITY  
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## INFORMATION SHEET

## 1) Addressed to:

Name of Tendering Authority	Registrar
Address	Gangadhar Meher University, Amruta Vihar, Sambalpur, Odisha-768004

## 2) Firm Details:

Name of Firm				
Name of contact person with Designation				
Registered Office Address				
Address of the Firm				
Year of Establishment				
Type of Firm	Public Limited	Private Limited	Partnership	Proprietary
Put Tick (✓) mark				
Telephone Number(s)				
Email Address/Website				
Mobile Number				
Certification/Accreditation/Affiliation if any				

- 3) The requisite tender fee amounting to ..... has been deposited through .....(Transaction ID.....)
- 4) The requisite EMD amounting to ..... has been deposited through .....(Transaction ID.....)
- 5) I/We agree to abide by all terms and conditions mentioned in form issued by the University and also the further conditions of the said notice given in the attached sheets (all the pages of which have been signed by me/us in token of acceptance of the terms mentioned therein along with stamp of the firm).

Date:

Name &amp; Seal of the Firm:

Authorized Signatory:

  
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 GANGADHAR MEHER UNIVERSITY  
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## TECHNICAL SPECIFICATIONS OF THE EQUIPMENTS

### HALL COEFFICIENT SET UP

Coils: 400 turns.

Coil Current: 4.5Amp (Max.)

Connection: 4mm safety socket.

U Core: 150x130mm(LxH), 40x40mm cross section.

I Core: Length=150mm, 40x40mm cross section.

Core material: Ferromagnetic.

Base dimension: 360x180x33mm

Weight: 8.8kg (Approx.)

**Power Supply** : Voltage: 0-16 Volt DC continuously variable & stabilized

Ripple: Less than 25mV

Overload protection: Current limiting

Current: 5 Amp. Continuously variable from 10% to full rating

Display: Two separate displays(3 digit LED) are provided to monitor the output voltage and load current continuously

Working voltage: 230V AC, 50 Hz single phase

**Constant current source** : Current: 0-20 mA DC

Resolution:10 micro ampere

Power:220V  $\pm$  10%, 50 Hz AC

Display: 3½ digit LED

Weight: 3 Kg approx

**Digital Gauss meter**: Range: 200 G & 2 kG

Resolution: 1G at 0 – 200G

Offset: By potentiometer to set ZERO

Input Voltage: 220 V,  $\pm$ 5%, 50 Hz AC

Axial Hall probe: InAs

**Digital Multimeter**: Resistance: 200W, 2000W, 20k, 200k & 2000k W.

D.C.Voltage: 200 & 2000 mV

: 20, 200 & 600 V

A.C.Voltage: 200 & 600 V

D.C.Current: 200 & 2000 mA

: 20 & 200 mA

: 10 A

Testing: Diode & transistor

Battery: 9V

### **Boltzmann constant set up**

- (a) A digital mill voltmeter (0 – 9.99 V) to measure the voltage across the diode.
- (b) A highly stabilized power supply whose voltage can be varied in steps of 1 mV using a ten – turn potentiometer.
- (c) A digital current ammeter ( 0 – 500 mA).
- (d) Diodes: Silicon diodes & Germanium diodes.

## Dielectric constant set up

### Dielectric constant kit:

- A. Metal Rail: Metal sheet, L=350mm approx.
- B. Capacitor plate: Aluminium, 20cm x 20cm (LxW)
- C. Capacitor plate: Aluminium, 28cm x 28cm (LxW)
- D. Glass sheet: 21cm x 21cm (LxW)
- E. Polystyrene sheet: 21cm x 21cm (LxW)
- F. Two way switch: 4mm socket, 3 nos.
- G. Capacitor: 0.01 $\mu$ F & 0.001 $\mu$ F
- H. Spacer: PVC (1,2,3,4,6 mm)
- Electrometer amplifier Input Impedance: >1013  $\Omega$

Input Current: < 0.5pA

Output Voltage: upto +10V

Output Current: 5mA (Short Circuit Protected)

Output impedance: < 1 $\Omega$

Supply Voltage: 12 V AC

Power supply ( 2-12 V AC/DC)

Output: 2,3,4,5,6,8,10 & 12VAC full wave rectified, unsmoothed & unregulated D.C.

Overload: Resettable thermal trip.

Input: 230 V AC, 50 Hz

High voltage power supply (0-600V DC)

Input Voltage: 220V,  $\pm 5\%$ , 50Hz AC

Output Voltage: 0-600V DC

Voltage Resolution: 10V

Voltage Display: Analog

Short Circuit Current: 100 $\mu$  Amp

Flexible plug leads (50 cm), black

Flexible plug leads (50 cm), red

Flexible plug leads (100 cm), yellow

Earthing lead (100 cm), green

Way switch

Capacitor module 0.01mF

Capacitor module 100nF

4.7 M $\Omega$  Resistance box

### SOLENOID MAGNETIC FIELD MEASUREMENT APPARATUS

Integrated Hall sensor Magnetic field measurement range:  $-67 \sim +67$  m T, sensitivity:  $31.3 \pm$

1.3 V/T

Solenoid length: 260 mm, inner diameter: 25 mm, outer diameter: 45 mm, 10 layers

$3000 \pm 20$  turns, length of uniform magnetic field in center:  $> 100$  mm

Digital constant-current source  $0 \sim 0.5$  A

Current meter 3-1/2 digit, range:  $0 \sim 0.5$  A, resolution: 1 mA

Volt meter 4-1/2 digit, range:  $0 \sim 20$  V, resolution: 1 mV or  $0 \sim 2$  V, resolution: 0.1mV



## MAGNETIC SUSCEPTIBILITY SET UP

(a) Beam: Hard Bronze/ Brass

Arrestment: Circular, falling away type

Air Damping: Very quick and positive, beam coming to rest in 2-3 sec

Chainomatic Device: A gold plated chain is suspended from the beam with its other end screwed on the rotating drum on which a scale graduated from 0 to 10 div each division representing 1mg is installed. By the movement of this scale before a vernier, reading upto 1/10th mg is taken

(b) Sample in the form of a long rod:

Set of 4 samples, 2 each of Ebonite and Wood

(c) Electromagnet, Model EMU-75T

Pole Pieces: 75mm tapered to 25mm

Mag. Field: 20KG at 6mm air gap

Energising Coils: Two of approx. 13 $\Omega$  each

Power: 0-90Vdc, 3A, for coils in series

0-45Vdc, 6A, for coils in parallel

(d) Constant Current Power Supply, Model DPS-175

Current: 0-3A per coil Smoothly adjustable

Line Regulation:  $\pm 0.1\%$  for 10% mains variation

Load Regulation:  $\pm 0.1\%$  for load variation from 0 to max.

Display: 3½ digit, 7 segment LED display

Protection: Protected against overload, short circuit and transients caused by the load inductance.

Power: 220V 10%, 50Hz or 110V 10%, 60Hz as required

Weight: 13Kg.

## CRO

Type of oscilloscope	digital
Band	$\leq 70\text{MHz}$
Number of channels	2
Memory record length	2Mpts
Sampling	1Gsps (in real time), 25Gsps (in equivalent time)
Rise time	$\leq 5\text{ns}$
Kind of display used	LCD TFT 5,7" (320x234), color
Time base	1n...50s/div
Vertical resolution	8bit
Trigger modes	automatic, normal
Max. input voltage	300V
Input impedance	1M $\Omega$ /15pF
Input coupling	AC, DC, GND
Trigger coupling	AC, DC, lowpass, highpass
Dimensions	310x142x140mm
Weight	2.5kg
Power supply	100...240VAC, 48...63Hz
Interface	USB
Trigger	video signal, impulse width, rising-edge, falling-edge
Manufacturer series	GDS-1000A-U
Plug variant	EU
Kind of oscilloscope	DSO

**Cryogenic storage(-60° c)**

Capacity(Minimum)	218 Ltr
Inner Temperature	-40 <sup>0</sup> c to -86 <sup>0</sup> c
Voltage	220/50 V/Hz
Power	1000 W

  
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### Refrigerated centrifuge (20 K RPM)

Maximum speed	20000 rpm
Digital timer	0 - 99 minutes
Maximal centrifugal force RCF	2300
Temperature	-20 <sup>0</sup> C to + 40 <sup>0</sup> C



### Water Purification System Millipore

Resistivity at 25 °C1	18.2 MΩ•cm
TOC2	≤ 5 ppb
Particulates (size > 0.22 µm)3	< 1 particulate/mL
Bacteria3,4	< 0.01 CFU/mL
Pyrogens (endotoxins)4	< 0.001 EU/mL
RNases4	< 1 pg/mL
DNases4	< 5 pg/mL
Flow Rate	Up to 2 L/min



### Distillation unit

Distillation Column Diameter	21 mm
Distillation Column Length	90 cm Long
Distillation Column Jacket	Vacuum Jacket and Silvered "Mirror"
Condenser	Inner Coil and Outer Jacket
High Surface Area for Efficient Condensing	Cools Distillate Further Before Going to Receiver
Boiler Heater	Electrical
Boiler Sizes	1,2,3,5,12,22 and 50 liter sizes
Boiler Stirring	Standard

  
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### Dispenser Digital

volume range

1-10 mL

10-100 mL

  
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### Digital Burette

Measuring range  
Volume

50 mL volume, accuracy: 0.06%  
50 ml

  
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## Binocular LED vision Microscope

Basic image acquisition including HDR and auto-calibration of magnification and Live HDR\*<sup>1</sup>, and position navigation\*<sup>1</sup>  
Software autofocus\*<sup>2</sup> and movie acquisition (Avi format)  
Time lapse, Instant EFI, and Instant/Manual MIA\*<sup>3</sup>  
Motorized EFI/MIA and Z-stack acquisition  
Remote live view (NetCam)  
Computer connectivity





## Digital Microscope with a digital camera and software

Image sensor	1/1.8 inch, 2.01 megapixels, color CCD (total pixels: 2.10 megapixels) Total pixels : 1688 (H) x 1248 (V) Available pixels : 1628 (H) x 1236 (V) Effective pixels : 1600 (H) x 1200 (V)
Cooling method	Peltier cooling
Scan mode	Progressive scan
Frame rate	15 fps/27 fps with binning mode
Image size	Normal : 1194 x 1194 (1:1)/1592 x 1194 (4:3) Fine : 1194 x 1194 (1:1)/1592 x 1194 (4:3) Super fine : 3594 x 3594 (1:1)/4792 x 3594 (4:3)
Sensitivity	ISO 100/200/400/800/1600 equivalent
Image sensor	1/1.8 inch, 2.01 megapixels, color CCD (total pixels: 2.10 megapixels) Total pixels : 1688 (H) x 1248 (V) Available pixels : 1628 (H) x 1236 (V) Effective pixels : 1600 (H) x 1200 (V)



### Fluorescence zoom microscope with digital camera

5X to 400X ,  
1: 8 zoom ratio,  
0-30 inclination angle,  
Std diasopic stand,  
to a computer with its software



### UV Trans-illuminator

Transmitting area (mm)	Wavelength(nm)	Intensity	Size(mm)
260×210	302 (254, 365 option)	Variable intensity	360×290×90

  
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### Horizontal gel electrophoresis 24 well

Complete set: Including base gel running unit, safety lid, at least two standard casting trays and combs. Gel Casting Tray: standard form; Combs sizes: 1.0 mm -10 wells, 12 wells, 16 wells,24 wells 2.0 mm - 10 wells, 12 wells, 16 wells & 24 wells

Power Supply: Power Supply suitable for vertical (mini and standard) and horizontal gel electrophoresis,

- semi-dry and mini tank blotting. Constant voltage and constant current modes
  - Output Voltage: Adjustable from 0/5/10V to 500V/600V with an increment of 1 V or less
  - Output Current: up to 800/1000 mA with increment of 1 mA
  - Output power : 300W or more
  - Terminals/ Sockets : 4 Pairs/4
  - Safety: All necessary safety provisions like Over load, No load, Sudden change in load,
  - power failure indication, Over Temperature and safe plugs and sockets
- Input Voltage: 230V  $\pm$ 10VAC, 50Hz

  
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### Vertical gel electrophoresis 24 well

Including base gel running unit, safety lid, connecting leads, spacers etc.  
Gel casting unit including glass plates, combs, casting frame etc.

- Comb size includes 0.75mm, 1.0mm, 1.5mm, 2mm etc.
- Clamp based gel casting unit will be preferred

All accessories needed to make the unit fully functional must be included /quoted

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## Gel documentation system

CCD resolution (H x V) : 1,360 x 1,024 pixels  
Pixel density : 4,096 gray levels  
Pixel size (H x V): 4.6 x 4.6  $\mu\text{m}$   
Resolution : 1.4 megapixel  
Dynamic range : >3 orders of magnitude  
Motorized zoom lens: C-mount, f /1.2, 8.5 - 51 mm  
Illumination modes: Trans-UV, trans-white, epi-white  
Excitation source :254, 302, 365 nm, and white light  
Filter positions : Fluorescence: 2  
Computer interface : USB  
Emission filters : 1 included (EtBr/SYBR Green bandpass filter), 4 optional  
Transillumination area: 25 x 26 cm  
Operating system compatibility Windows XP/2000/Vista and Mac OS X



## Vacuum Pump:

### **Specification:**

1. Max Flow LPM-45
2. Max Press.PSIG-40
3. Max Vac- Inch Hg-22
4. Approx Weight Kg-6.2
5. Motor HP-1/8
6. Approx. Dimensions mm-220x120x180



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### Conductivity TDS meter

#### Specification:

1. With 4digits LED display and manual Temperature Compensation
2. Key Board-Touch switches
3. Cell constant:- Adjustable (0.05-10.5)
4. Temperature co Eff :- Adjustable 0.01%-4.0%
5. User friendly menu power supply:- 230V+10%,AC.
6. Auto Range selection:-  
Conductivity : 0-1000ns (0-200k,2m,20m, & 1000m)
7. Temp:- 0-100C-
8. Resolution:- Conductivity:- 0.01/0.1micro Siemens.

  
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## Digital Electronics Balance

### Specification:

1. Capacity:- 600gm
2. Readability:-0.01gm
3. Linearity (+/-):- 0.02gm
4. Pan Size (mm/inch):-110
5. Response time :- 2-3sec
6. Display :- Alpha Numeric LCD Display
7. Calibration:- Automatic External-Calibration.
8. Units of measure :-gm,mgGN,mo OZ, dwt,mom Bat,ms
9. Tare Range :- Full capacity.
10. Operating Temp:- 15 c to35c
11. Sensitivity Drift:- $\pm 2$ ppm (2x10

Power Supply:-A/C Adaptor 230V or 115V/+/-20%50-60HZ



## Digital Potentiometer

### Specification:

1. Range-0to  $\pm 199.9\text{mv}$ , 0to1999mv,
2. Resolution:-0.1mv
3. Repeatability:- $\pm 1\text{mv}$
4. Accuracy;-1mv $\pm 1$ digit
5. Input Impedence:- $\geq 10^{12}\text{Ohms}$ .
6. Display:-4digit.
7. Power Supply:-230v $\pm 10\%$
8. 50Hz AC, supplied with O.R.P. Electrode (Platinum Electrode)
9. Electrode Stand.

Dust cover and manual.

  
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## FT IR Spectrometer

- Spectrometer housing:- Rigid and durable housing.
- Interferometer: Permanent aligned Rock solid™ cube corner interferometer for highest stability; insensitive mirror tilt, mechanical vibrator and temperature variation; lifetime > 10 years.
- Optics: 1. Sealed and desiccated
  - 2. Mirrors: Gold coated for highest efficiency in the mid-IR spectral range.
  - 3. KBr windows and beamsplitter;
    - Option "High Humidity" optics with ZnSe-Beamsplitter and ZnSe windows.
- Calibration Laser: Diode laser with high wavenumber accuracy and precision, Long life time (>10 years) and low power consumption.
- IR source: CenterGlow™ technology for continuously optimized light flux, long life time (>5 years)
- Detector: High sensitive temperature- Controlled DLaTGS-detector, High stability against external temperature changes.
- Spectral range: 350-8000  $\text{cm}^{-1}$ , with standard-KBr beamsplitter
  - 500-6000  $\text{cm}^{-1}$ , option: "High Humidity" ZnSe optics
- Signal-to-noise ratio: Typically > 55,000:1 (1 min measurement time, spectral resolution 4 $\text{cm}^{-1}$ )
- Spectral resolution: Better than 2  $\text{cm}^{-1}$ , optional better 0.75  $\text{cm}^{-1}$ , free adjustable resolution from 0.75  $\text{cm}^{-1}$  to 256 $\text{cm}^{-1}$
- Wavenumber accuracy: <0.05  $\text{cm}^{-1}$  @ 2000  $\text{cm}^{-1}$
- Wavenumber precision: Repeatability < 0.0005  $\text{cm}^{-1}$  - 2000 $\text{cm}^{-1}$  (Standard Deviation of 10 repeated measurements)
- Photometric accuracy: Better than 0.1% T
- A/D Converter: 24 bit dynamic range
- QuickSnap™ Sampling modules: Full coverage of all typical M-IR sampling and measurement techniques, easy exchange with reliable one-button fixing mechanism.
  - \* Platinum-ATR: Single reflection ATR with monolithic diamond, soldered in tungsten carbide-hard metal for highest mechanical and chemical robustness; optional heating function life time > 10 years.
  - \* Eco-ATR: Single reflection ATR with ZnSe and Ge crystal.
  - \*Transmission: KBr pellet holder, variety of liquid and gas cells, heatable gas cells with 7 m and 4.8 m path length
  - \*Reflection: Variety of diffuse and specular reflection modules providing the optimal interfere for any sample; reflection with integrated video-option.

## UV-Vis-Spectrophotometer

Specification	Double Beam optical System
➤ Wave length range	190 nm to 1100 nm
➤ Working mode	Stand alone and PC controlled with window based application software UV/VIS analyst
➤ Spectral Band width	Variable 0.5,1,2,4 nm
➤ Monochromator	Double beam hollow graphic grating 1200 lines/nm
➤ Wavelength Display	0.1 nm
➤ Wavelength Setting	0.1 nm
➤ Wavelength Accuracy	+/- 0.1 nm @ 656.1 nm D2
➤ Wavelength repeatability	+/- 0.3 nm (190 to 1100 nm)
➤ Stray Light	0.1 nm
➤ Photometric Accuracy	0.02% @ 340 nm for NaNO <sub>2</sub> 0.25% @ 198 nm for KCl +/- 0.002 Abs (0.5) +/- 0.002 Abs (1.0) +/- 0.002 Abs (2.0)
➤ Photometric Reproducibility	0.01 Abs (0.5 Abs) 0.01 Abs (1.0 Abs) 0.001 Abs (2.0 Abs)
➤ Baseline stability	< 0.0002 Abs/H @ 500 nm
➤ Baseline Flatness	+/- 0.0005 Abs
➤ Noise Level	0.000016 Abs RMS @ 500 nm
➤ Standard cell Holder	Standard 10 nm single cell holder 2 pcs
➤ Light source	Tungsten and Deuterium Lamp, Pre-aligned
➤ Output	USB port and parallel port (Printer)
➤ DNA/Protein Measurement	Included

  
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## **THERMAL CYCLER**

<b>Capacity:</b>	1 x 96-well plate, 96 x 0.2 ml tubes
<b>Dimensions( minimum):</b>	Height: 24.5cm (9.6 in.), Width: 23.7 cm (9.3 in.), Depth: 48.5 cm (19.1 in.)
<b>Display Interface:</b>	6.5 in. VGA 32k color with touch screen
<b>Instrument Memory:</b>	USB and On-board
<b>Peak Block Ramp Rate:</b>	3.9°C/sec
<b>Program Features:</b>	Auto re-start (after power outages), Program overwrite protection
<b>Reaction Speed:</b>	Fast, Standard
<b>Reaction Volume Range:</b>	10-100 µl
<b>Sample Ramp Rate:</b>	± 3.35 °C/sec
<b>Temperature Accuracy:</b>	±0.25°C (35°C to 99.9°C)
<b>Temperature Range (Metric):</b>	4.0-99.9 °C
<b>Temperature Uniformity:</b>	<0.5 °C (20 sec after reaching 95 °C)
<b>Tm Calculator:</b>	Menu driven through touch screen

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Gel Size: 8x7cm

### Two gel running capacity

### Optional preparative combs

Gel casting stand, no tapes or grease.

Single cast mould to prevent leakage

Large: 15x25cm gel tray UV transparent gel Tray, 15, x20x30well 1.5x1.0mm thick combs (2each) Detachable electrodes, 15x15cm UV Transparent gel tray, tape free gel caster alongwith casting gates, optional preparative combs.

200W maximum

Type of output: constant voltage or current with automatic crossover

Output terminals: 4 recessed sets in parallel

Timer: 0.999 minutes

Safety features: No load detection, ground leak detection, sudden load change detection, overload/short circuit detection, auto power up after power failure.

## ULTRA CENTRIFUGE

Working Voltage == 220-230 Volts

RPM / g –100,000 RPM / 800,000g

Easy Protocol Set up; Low Noise Level.

LCD-Touch Screen Display.

Rotar Tracking Facility ; Password Protected ; User

Defined Programme Temperature 0<sup>0</sup>-40<sup>0</sup>.C

Speed Control +/-10RPM–

Rotor Requirements :

(a) Angular

(b) Swing out with compatible tubes and adaptors.

(Please Quote Different Rotors with price individually Equipment should be supplied with two AC of 1.5 ton capacity)


Stabilizer : Good Quality Compatible and Robust.

5 Year Warranty / Guarantee for the main equipment.

User Lists and Other Detail

Accessories:

Different types of tubes/adaptors compatible to the rotors may be quoted with price mention separately for each item.

  
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## INCUBATOR

<b>SPECIFICATIONS</b>		<b>IC150</b>			
<b>Temperature Controller</b>	PID microprocessor temperature controller, temperature set by control keypad to 0.1°C, digital LED				
<b>Temperature Range</b>	+5°C above ambient to 80°C				
<b>Temperature Accuracy</b>	±0.1°C				
<b>Temperature Uniformity</b>	±0.5°C at 37°C				
<b>Circulation</b>	Forced air				
<b>Window</b>	Glass window eliminates need to open door for observation.				
<b>Shelves Included/Max</b>		2/13			
<b>Probe Access Port</b>	One				
<b>Over-Temperature Protection</b>	Independent thermostat provides over-temperature protection				
<b>Chamber Dimensions (WxDxH)</b>		23.6" x 19.7" x 19.7" (60 x 50 x 50) cm			
<b>Chamber Volume</b>		5.3 cu. ft. (150 liters)			
<b>Overall Dimensions (W x D x H)</b>		27.6" x 24.0" x 32.3" (70 x 61 x 82) cm			
<b>Power Requirements</b>	120VAC, 50/60Hz, single phase (220V available)				
<b>Shipping Weight</b>		170 lb (77 kg)			

  
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## Automatic Microtome

➤ **Technical parameter:**

Section thickness range : 0.5 — 600 $\mu$ m

0.5 $\mu$ m-2 $\mu$ m in 0.5 $\mu$ m increments

2 $\mu$ m-10 $\mu$ m in 1 $\mu$ m increments

10 $\mu$ m-20 $\mu$ m in 2 $\mu$ m increments

20 $\mu$ m-100 $\mu$ m in 5 $\mu$ m increments

100 $\mu$ m-600 $\mu$ m in 50 $\mu$ m increments

Trimming thickness: 0.5 to 600 $\mu$ m

Retraction thickness: 20 $\mu$ m

Specimen horizontal feed: 20mm

Specimen vertical feed : 70mm

Maximum specimen : 40x50mm

Specimen holder adjusted system:

Horizontal orientation:  $\pm 8^\circ$

Vertical orientation :  $\pm 8^\circ$

Repositioning of knife holder base(east-west): 50mm

cutting speed : 300 $\mu$ m/s and 900 $\mu$ m/s





## HPLC UNIT

- High Pressure binary gradient Two pump Integrated System.
- The machine should be operable both in isocratic and gradient mode.
- The flow rate should be within a range from 0.001 to 20 ml/min with the possibility of increment of 0.01 ml/min for carrying out semi-preparative applications.
- Flow Precision:  $\leq 0.1\%$  RSD or better.
- Flow Accuracy:  $\pm 1.0\%$  or better
- Delay Volume :  $<200\mu\text{l}$  (with Mixer).
- Max. Operating pressure: 6000 psi or more.
- Gradient Composition Accuracy :  $\pm 0.5\%$  of setting 1ml.
- Gradient Composition Precision :  $\pm 0.5\%$  of RSD of setting 1ml.
- Should have possibility to operate in various gradient curve mode including Liner, Step, concave, convex etc.

### **Manual Injector**

- Loop Size volumes should be of 5ul, 20ul, and 200 ul etc. with suitable syringe.
- Column Oven
- Should have provision for housing at least four or more columns of 30 cm length.
- Temperature setting range: Ambient-60°C or better
- Operating temperature: ambient to 60°C or better

### **UV Detector**

- The detector should have wavelength range of 190 -700nm
- Bandwidth  $<5\text{nm}$
- Wavelength accuracy of  $\pm 1\text{ nm}$
- Wavelength Repeatability:  $\pm 0.1\text{ nm}$
- Linearity  $<5\%$  at 2.4AU
- Base line Noise single wavelength  $5.0 \times 10^{-6}$  AU at 230 nm or better
- Base line Noise Dual wavelength  $35.0 \times 10^{-6}$  AU at 230nm, 280 nm or better
- Drift  $1.0 \times 10^{-4}$  AU
- Sampling rate : Upto 80
- Flow Cell Path length: 10mm, Cell volume:  $16.3\mu\text{l}$  or less.
- Light Source: Deuterium or tungsten lamp with minimum life of 2000 hrs or more.

- Should have provision of low noise performance within the operable wavelength range without lamp change.

### **ECD Detector**

- Operating modes: Direct Current pulsed amperometric detector (PAD) scan.
- Potential Range:  $\pm 200\text{mV}$  in 10mV steps (DC,PAD,Scan)
- Column Oven: 70° C above ambient to 450 °C, 0.10° c resolution.
- Analog Signal Output :  $\pm 1\text{volt}$  or  $\pm 10\text{ volt}$  selectable.
- Auxiliary Electrode:Stainless steel.
- Working Mode: DC
- Filter time constants: 0.1-5 seconds in 1,2,5 sequence steps ,DC mode
- Current Range : DC 10pA(dummy load .47 Uf,200Mohms,+800mV, time constant 1.0 s) at temperature equal 300 C.
- PAD Mode
- Range: 20nA-200uA,1,2,5 sequence steps.
- t1: 100-2000 ms
- t2: 100-2000 ms
- t3:0(off) -2000 ms in 10 ms steps
- Sample times (ts)= 20, 40, 60, 80, 100 ms
- Scan Range: 10nA-5uA in 1, 2, 5 steps
- Scan Times: 1-50 Mv/s in 1, 2, 5 steps
- Scan Cycles: Half, Full, Continuous
- Time event programming: DC & PAD
- Flow Cell: Design: Confined Wall -Jet
- Standard flow cell: 0.08uL min. volume, flow rate 25uL/min-2mL/min

### **Software**

- The software should be original and authenticated
- Should have option for versatility for multitasking without multiple software packages
- Should have option for data integrity along with advanced security measures
- Embedded Oracle data base software must be quoted.
- Single point control/Single software must be quoted to control and acquire data from all the module

## Atomic Absorption Spectrophotometer

The Atomic Absorption Spectrometer should be true optically double beam with permanently aligned dual atomizers having capability to use both flame and furnace mode of operation simultaneously from one PC controller. The system should provide D2 background correction for flame part and Zeeman background correction for furnace system.

Fast Sequential capability using hollow cathode lamps in the flame mode of operation, where all the elements ( as mounted in the lamp holder) in a sample can be analysed in a single aspiration.

The instrument should have fully sealed quartz quoted optics with a good quality of Monochromator with focal length of at least 250 mm having Holographic blazed diffraction grating, wavelength range: 185 – 900nm. Computer controlled adjustments of spectral bandwidth in steps.

. The instruments should have P.M.T Detector,

. It should have automatic gas control system. Sensitivity of the instrument for flame operation should not be less than 0.85 A of 5ppm Cu in 5-seconds integration time.

The software should be windows

based multitasking with a provision of calibration, recalibration, data storage, data manipulation, reslope, post data run, display of recommended condition, graphs, curves, absorption peaks, background correction inter elemental correction including fault / error finding diagnostic features, statistical parameters and all necessary features.



## **Motionlogger Micro Watch Kit**

Zero Crossing and PIM activity modes of recording, ambient light, delta temperature, Life Measures for off-wrist detection, programmable epoch length as per model 27.000, above, in rugged translucent case (100M water resistant). Other features include LCD with time-of-day, activity and battery level indicators, selectable LED indicator for feedback on event marking, and date display. Over 30-days of runtime using a DL2430 (user replaceable) battery, and 2 Mb of non-volatile memory.

### **Kit Includes:**

- Wrist-worn Motionlogger Micro Watch
- IrDA Cable/Connector with WatchWare Operational Software
- Action W-2 Analysis Software Program



## Digital Sound Level Meter

Sound Level Range: 35 to 130 dBA

Frequency Range: 0.0315 to 8 kHz

Slow Response  
Setting: 1 s

Fast Response  
Setting: 125 ms

Accuracy ( $\pm$ ): 1.5 dBA

Typical Battery Life: 50 h

Features

- A and C weightings (check compliance with safety regulations and acoustic analysis)
- Maximum hold feature to measure peak sound levels
- NIST Certification included
- Four digit LCD display in 0.1 dBA steps with backlight
- Automatic power off after 15 minutes of non-use Meets CE, ANSI and IEC Type 2 SLM standards
- Tripod mounting ideal for taking long term measurements (tripod not included)
- Removable windscreen for use in windy conditions to reduce misreads
- Includes protective carrying case, 9 V battery, instruction manual and removable windscreen



### Luxmeter with Battery/carry case

• Ean	=0734026222336
• UPC	=734026222336
• Display	=2000 counts, analog bar indication
• Measurement Range	= 0~200000Lux or 0~20000FC, 0.01Lux or 0.01FC
• Display Backlight	= Low battery indication
• Standard Accessories	= Battery, carry case and manual
• Dimension	= 170 millimeter x 89 millimeter x 43 millimeter





## Automated Nucleic Acid Purification System

Sample Capacity: 1-12 Samples per run

Sample Volume: 140-800µl

Elution Volume: 50, 100, 150, 200µl

Processing Time: 50-120 minutes

Heating Block: Room Temp. to 120°Cx1;

Room Temp. to 70°Cx1

Electric Control: Internal microprocessor

Light Source: LED white light

Touch Screen: WVGA (16:9) 7" TFT LCD

Power Supply: 100-240V, 50/60 Hz

Operating Condition: 18-30°C

Weight: 60 Kg

Dimension : (W x D x H): 44 x 72 x 64 cm

UV Light: InBuilt

