****

|  |
| --- |
| **COLLEGE OF ENGINEERING AND TECHNOLOGY**(A Constituent College of Biju Patnaik University of Technology, Odisha)TECHNO CAMPUS, GHATIKIA, PO: MAHALAXMIVIHARBHUBANESWAR-751 029 |
|  |  |  |
| **Ref. No. 3956 /CET;** | **Dated 17-11-2016** |
|  |  |

|  |
| --- |
|  |
|  |

**TENDER CALL NOTICE**

Sealed tenders are invited from reputed Original Equipment Manufacturers (OEM)/ Authorized Agents/ Dealers/ Suppliers for supply of equipment through registered post/ speed post/ courier for different laboratories of **Department of Biotechnology**, *viz*. (1) Biochemistry Laboratory, (2) Microbiology and Fermentation Technology Lab, (3) Molecular Biology Laboratory.

The last date for receipt and date of opening of various tenders is mentioned in the respective tender document. The tenders will be opened in the office of the Principal, College of Engineering and Technology, Bhubaneswar in the presence of bidders and/or their nominees. The tender bid documents with details of terms and conditions are to be downloaded from the College Website: [**www.cet.edu.in**](http://www.cet.edu.in)**.**

The authority reserves the right to reject/cancel the tenders in whole or in part without assigning any reason thereof. The authority will not be responsible for any postal delay. **No hand delivery is accepted**.

 Sd/-

PRINCIPAL

**Tender No. 3956 / CET Dated 17 /11 /2016**

**Bidding Documents and Instruction**

**ForSupply, Installation & Commissioning of**

**Equipment& MachinesFor**

**Biochemistry Laboratory**

**of Biotechnology Department**

****

**COLLEGE OF ENGINEERING AND TECHNOLOGY**

**INVITATIONFORBIDS**

**College of Engineering & Technology, Bhubaneswar** invites sealed tender under two bid systems i.e. Technical and Financial Bid from Original Equipment Manufacturers (OEM)/reputed manufacturers/ Authorized Agents/ Dealers/ Suppliers/authorized agencies/dealers/suppliers for supply, installation and commissioning of Machines/equipment to the **Department of Biotechnology** of this College as per the schedule given below. Interested eligible Bidders may download bid documents for detail information and list of items with technical specifications from **the website of the College** [**www.**](http://www.nitdgp.ac.in)**cet.edu.in**

Particularsaboutsubmissionofbiddingdocument areasfollows:

|  |  |
| --- | --- |
| (a) Price of bidding document: (non-refundable) | **Rs.500/-** |
| (b) Earnest Money Deposit (EMD) | **Rs.30,000/-** |
| (c) Date of availability of Bidding Document in the website:  |  **18-11-2016** |
| (d) Last date and time for submission of bids**:**  | **19-12-2016 upto 1.00 PM** |
| (e) Date and time of opening of bids:  | **19-12-2016at 3.00 PM** |
| (f) Place of opening of bids: | **Office of the Principal,****College of Engineering & Technology****Techno-Campus, MahalaxmiVihar,** **Ghatikia, Bhubaneswar-751029** |
| (g) Address for correspondence: | **Principal,****College of Engineering & Technology****Techno-Campus, MahalaxmiVihar,** **Ghatikia, Bhubaneswar-751029** |

**Tender No. 3956 / CET Dated 17/11/2016**

**Bidding Documents and Instruction**

**ForSupply, Installation & Commissioning of**

**Equipment& MachinesFor**

Microbiology and Fermentation Technology Lab

**of Biotechnology Department**

****

**COLLEGE OF ENGINEERING AND TECHNOLOGY**

**INVITATIONFORBIDS**

**College of Engineering & Technology, Bhubaneswar** invites sealed tender under two bid systems i.e. Technical and Financial Bid from Original Equipment Manufacturers (OEM)/reputed manufacturers/ Authorized Agents/ Dealers/ Suppliers/authorized agencies/dealers/suppliers for supply, installation and commissioning of Machines/equipment to the **Department of Biotechnology** of this College as per the schedule given below. Interested eligible Bidders may download bid documents for detail information and list of items with technical specifications from **the website of the College** [**www.**](http://www.nitdgp.ac.in)**cet.edu.in**

Particularsaboutsubmissionofbiddingdocument areasfollows:

|  |  |
| --- | --- |
| (a) Price of bidding document: (non-refundable) | **Rs. 500/-** |
| (b) Earnest Money Deposit (EMD) | **Rs.16,000/-** |
| (c) Date of availability of Bidding Document in the website:  | **18-11-2016** |
| (d) Last date and time for submission of bids**:**  | **19-12-2016 upto 1.00 PM** |
| (e) Date and time of opening of bids:  | **19-12-2016at 3.00 PM** |
| (f) Place of opening of bids: | **Office of the Principal,****College of Engineering & Technology****Techno-Campus, MahalaxmiVihar,** **Ghatikia, Bhubaneswar-751029** |
| (g) Address for correspondence: | **Principal,****College of Engineering & Technology****Techno-Campus, MahalaxmiVihar,** **Ghatikia, Bhubaneswar-751029** |

**Tender No. 3956 / CET Dated17 /11/2016**

**Bidding Documents and Instruction**

**ForSupply, Installation & Commissioning of**

**Equipment& MachinesFor**

Molecular Biology Laboratory

**of Biotechnology Department**

****

**COLLEGE OF ENGINEERING AND TECHNOLOGY**

**INVITATIONFORBIDS**

**College of Engineering & Technology, Bhubaneswar** invites sealed tender under two bid systems i.e. Technical and Financial Bid from Original Equipment Manufacturers (OEM)/reputed manufacturers/ Authorized Agents/ Dealers/ Suppliers/authorized agencies/dealers/suppliers for supply, installation and commissioning of Machines/equipment to the **Department of Biotechnology** of this College as per the schedule given below. Interested eligible Bidders may download bid documents for detail information and list of items with technical specifications from **the website of the College** [**www.**](http://www.nitdgp.ac.in)**cet.edu.in**

Particularsaboutsubmissionofbiddingdocument areasfollows:

|  |  |
| --- | --- |
| (a) Price of bidding document: (non-refundable) | **Rs.500/-** |
| (b) Earnest Money Deposit (EMD) | **Rs.13,000/-** |
| (c) Date of availability of Bidding Document in the website:  | **18-11-2016** |
| (d) Last date and time for submission of bids**:**  | **19-12-2016 upto 1.00 PM** |
| (e) Date and time of opening of bids:  | **19-12-2016at 3.00 PM** |
| (f) Place of opening of bids: | **Office of the Principal,****College of Engineering & Technology****Techno-Campus, MahalaxmiVihar,** **Ghatikia, Bhubaneswar-751029** |
| (g) Address for correspondence: | **Principal,****College of Engineering & Technology****Techno-Campus, MahalaxmiVihar,** **Ghatikia, Bhubaneswar-751029** |

### Eligibility of Tenderer and General Instructions:

###  1.1 Eligibility:

Those who fulfill the following criteria are eligible to participate in the tender.

1. The tenderer must be a reputed Original Manufacturer and/or the Authorised agent/ dealer of a reputed manufacturer. Manufacturers should provide all documents relating to their **Manufacturing capabilities.**
2. If the tenderer is an Authorised Dealer/Agent of a reputed manufacturer, necessary certificate to this effect from his manufacturer must be enclosed.
3. All after sales support should be provided directly by the manufacturer.
4. The tenderer must have the willingness for providing comprehensive maintenance support of the Machine supplied by him.
5. The tenderer must provide evidence of successful execution of supply orders with installation and successful after sales support in reputed organizations.
6. The tenderer must have cleared Sales Tax and Income Tax payment up to date. Attested copies of Sales Tax Clearance Certificate or non-assessment certificate from the concerned Sales Tax Authority valid up to date and attested copy of Income Tax Clearance Certificate or non-assessment certificate, as the case may be, from the competent authority, up to date and PAN Number must be enclosed along with the Tender documents.

###  1.2 General Instructions:

The tenderers, who are **the Original Equipment Manufacturers (OEM)/ Authorised Agent/Dealers/Suppliers** of the product must be manufacturing the complete product, selling under the specified brand name and model are the eligible participants.

Submission of more than one bid by a particular tenderer under different names is strictly prohibited. In case it is discovered later on that, this condition is violated, all the tenders submitted by such tenderer/s would be rejected or contract cancelled.

All offers should be in English and the price quoted for each item should be firm.

Warranty period, Delivery period and After-Sale-Service conditions, etc. are also to be clearly indicated.

The rates and the conditions of the offer will remain valid for three months from the date of opening of the tender and no change or alteration of the rate will be acceptable on any account.

Submitted tender forms with overwriting or erased or illegible specifications and rates will be rejected.

Request from tenderer in respect of additions, alterations, modifications, corrections, etc. of either terms & conditions or rate after opening of the bid may not be considered. However, negotiation may be made before finalization.

Tenderers shall carefully examine the bid documents and fully inform themselves of all the conditions, which may in any way affect the work of the cost thereof.

Tenderer should submit their clientele list, preferably, of academic institutions of using this instrument. In addition, tenderer may submit some copies of reviewed research papers where use of this particular make and/or model instrument was referred to.

If a tenderer finds discrepancies or omissions from the specification or other documents and any doubt as to their meaning, he should at once notify the purchaser and obtain clarification in writing.

This, however, does not entitle the tenderer to ask for time beyond the due date fixed for receipt of tenders.

The tenderer must also specify minimum uptime and maximum time to repair/replace in the event of a failure and penalty thereof.

Verbal clarification and/or information given by the purchaser or its employees or representatives shall not be binding on the purchaser.

Submission of sealed bid will carry with the implication that the tenderer agrees to abide by the conditions laid down in the detailed particulars of the bid notice.

Conditional offers and offers qualified by vague and indefinite expression, as ‘subject to immediate acceptance’ ‘subject to prior sale’, etc. will not be considered.

While tenders are under consideration, tenderers and their representatives or other interested parties are advised to refrain from contacting by any means, to the purchaser's personnel or representatives on matter relating to the tenders under study.

The purchaser, if necessary, will obtain clarification on tenders by requesting such information from any or all the tenderers either in writing or through personal contact as may be necessary.

The tenderer will not be permitted to change the substance of his offer after the tenders have been opened.

In the event of non-compliance with this provision, the tenderer is liable to be disqualified.

### 1.3 Procedure for Submission of Tenders:

a) The Tenderers must submit their bids as required in two parts in separate sealed covers prominently super scribed as Part-I “TechnicalBid” and Part-II “Price Bid” and also indicating on each of the covers the “Tender Bid Number & Date, due date and time of submission as mentioned in Tender Cal Noticeand” Tender **for -------------------------------------------Laboratory**”

**Part-I (Technical Bid)**

Excepting the price schedule, all other documents i.e details of technical specifications, leaflet, Copy of Firm Registration Certificate from the competent authority,Sale Tax clearance, Income Tax Clearance, PAN Card copy, list of clients, authorization certificate from Manufacturer in case of Agent/Dealer, etc. along with tender document duly signed by the authorized person in each page shall be covered in Part-I (Technical Bid).

**Part-II (Price Bid)**

All indications of price shall be given in Part-II (Price Bid)

b)Both sealed covers Part-I **“Technical Bid”,**Part-II “Price Bid” should be placed in a third cover along with requisite **EMD & cost of Tender documents** (separately in the form of DD drawn in favour of **Principal, College of Engineering & Technology, Bhubaneswar** at any **Nationalized Bank** payable at Bhubaneswar) , others requisite supporting documents etc. and sealed. The sealed cover containing tender documents as per procedure indicated above should be submitted by Registered Post/Speed Post/Courier addressing to the **Principal, College of Engineering & Technology, Techno-campus, MahalaxmiVihar, Ghatikia, Bhubaneswar-751029within the due date and time as stipulated in Tender Call Notice.The College is not responsible for postal delay. The sealed envelope must show the name of the tenderer and his address and should be superscripted as “*Tender for*--------------------------Laboratoryof Biotechnology Department”**on the top of the envelope.

**c)**All the documents submitted must be in the papers showing signature of the tenderer and printed office name of the tenderer on official seal.

**d)**All the documents must be submitted in a sequential manner with separator/flags to help in quick scanning of the topics. Wherever possible, data in tabular form should be given.

### Requirements by Tenderer before Supply:

###  2.1 Rating Plate, Name Plate and Labels:

Each of the equipment is to have permanently attached to it, a rating plate of non-corrosive material in a conspicuous position, upon which the total specifications along with the manufacturer’s name, address, etc. are to be engraved.

### 2.2 Packaging:

All the equipment are to be suitably protected, covered in water -proof packing and crated to prevent damage or deterioration during transit and storage till the time of installation. The supplier shall be responsible for any loss or damage caused during transportation, handling or storage till their successful installation and commissioning. .

###  2.3.Inspection:

All materials / equipment shall be inspected and tested for completeness, proper assembly, operation, cleanliness and state of physical condition and performance as per quoted specification.

The test shall be conducted, reported and certifications to be provided by the tenderer.

The tenderer shall provide all test and measuring equipment/tools required for inspection / testing.

The cost of all such tests shall be borne by the Tenderer.

CET reserves the right to reject any equipment if it does not comply with the specifications during site testing, installation and commissioning stage.

Inspection & testing would be conducted, jointly, at various stages as applicable during unpacking, installation and commissioning of respective equipment / components at the manufacturing site.

###  2.4. Environmental Condition:

All the equipment supplied shall be rugged and should operate without any deviation in quality, or degradation of equipment performance. All the specification/parameters shall be guaranteed over the following environmental conditions:

\* Storage Temperature 0 to 70 degree Celsius

\*Operating Temperature 0 to 50 degree Celsius

\*Humidity 95% RH (non-condensing)

All the equipment are intended to operate under 220 V/ 440V, 50 Hz power supply.

### Requirements by Tender after Supply:

###  3.1 Supply:

The material should be delivered by the tenderer at the**Department of Biotechnology,College of Engineering & Technology, Techno-campus, Ghatikia, MahalaxmiVihar, Bhubaneswar – 751029, Odisha.**

The items should be supplied directly from the manufacturing terminal having passed all tests successfully with Certifications as required.

The equipment should conform to the latest relevant National/International standards and shall be completed in all respect.

Any component, fitting etc. which may not have been specifically mentioned in the specifications but which are usual and necessary for the equipment, shall be supplied by the tenderer at no extra cost.

In case, articles are found damaged in transit or found short at the time of delivery, the same should be replaced/supplied by the tenderer and full cost of the same will be borne by the tenderer. In case the supplier does not replace the stock within a week from the date of the complaint, the total payment of the concerned bill will be withheld.

The articles ordered must be supplied in one lot within **08 (eight) weeks (for Indian equipment or 120 days for foreign manufacturers)** of placing of the purchase order.

In case of delay in delivery or successful installation, a penalty of 1% (one per cent) per week shall be levied.

CET reserves the right to procure the materials from alternative sources at the risk and cost of the successful tenderer giving 15 days notice.

Any increase in tax and duties after expiry of delivery period will be borne by the supplier.

In case the items supplied by the supplier are found not up to the specification shall be rejected.

The supplier will be intimated to take back the stocks at his own cost within three days from the date of rejection and to replace the same within 7 days, failing which the EMD will be invoked in addition to taking legal actions.

Imported consignment, if any, should be destined to **Department of Biotechnology, College of Engineering & Technology, Techno Campus, Kalinga Nagar,Ghatikia, MahalaxmiVihar, Bhubaneswar – 751029,** Odisha, India. The tenderer/suppliers shall be responsible for releasing the consignments from the carriers/transporters.

**The equipment shall be delivered, installed and commissioned at site in the cost of the tenderer.**

**All taxes, levies, surcharges including the customs clearance and handling freight and insurance should be paid and handled by the tenderer.**

### 3.2 Installation and Commissioning:

Installation and Commissioning shall include the following:

1. Installation, Commissioning and Testing of the Equipment/Machineries etc. should be done by the tenderer at his/her own expenses.
2. It will be the responsibility of the tenderer to provide all necessary spares and consumables, which may be required during installation and commissioning, at no extra cost to purchaser.
3. The tenderer is to bring their own testing and measuring instruments required for installation, testing, commissioning, which can be taken back after completion.
4. Installation must complete within 15 days after delivery on site.
5. The tenderer should provide all necessary raw materials for running of the machine during commissioning.

### 3.3 Documentation:

Detailed technical manuals, handbooks, drawings, Warranty card and Factory Quality Assurance checklist, test results and any other certifications mentioned in the Technical specifications shall be supplied along with the consignment.

Supplied manuals/handbooks must cover detailed technical specifications and installation, operation, maintenance and System Safety procedures.

For Experimental setups details of theory, procedure and methods of taking measurements etc. should be provided in the form of hand books for each experiment.

The receipts for taxes paid, if any, for the supplied materials should also be submitted

### 3.4 Trial Operation and Performance Guarantee Test:

After successful completion of Installation and Commissioning of the equipment, a 7-day continuous trial operation putting those on optimum use shall be conducted by the tenderer at site, during which the performance of the equipment shall be demonstrated for trouble-free continuous operation, meeting the specified standards and proper training shall be imparted to two persons of the purchaser.

During trial operation, tenderer shall do all necessary adjustments required to ensure the performance as per the acceptable level.

In case, guaranteed performance is not established, the tenderer shall be given opportunity to rectify/replace the equipment/components, and restart the 7 days continuous trial operation, at the risk and cost of the tenderer.

### 3.5On-Site Warranty:

1. The entire materials may be used continuously. The reliability and safety of the total installed system and trouble-free operation are, therefore, of prime importance. The supplied devices/equipment and components shall be covered under **two-years or more** comprehensive on-site warranty from the date of issue of successful completion of Performance Guarantee Report.
2. During the period of warranty, it shall be the responsibility of the tenderer to provide all essential spares and consumables, which may be required for maintenance and trouble-free operation of the devices / components at the tenderer’s cost.
3. Software, if any, has to be tested with at least one-year warranty for trouble free operation.

### 3.6 Comprehensive Maintenance Contract:

The tenderer shall be under the obligation of entering into a Comprehensive Maintenance Contract (CMC) with CET for a minimum period of two years, renewable if felt necessary, on mutually acceptable rates, terms and conditions. CMC shall start after the completion of Warranty.

The scope of CMC shall cover maintenance and supply/replacement of materials and components, for smooth and reliable operation of the systems without trouble.

Accordingly, the tenderer has to offer rates for the CMC structure per equipment along with the price for the Systems and other associated Equipment supplied.

### 3.7 After Sales Service:

During the warranty period and subsequently, after signing of Agreement for CMC the tenderer shall attend to the problems reported by the users of CET on a priority basis.

For any problem reported the tenderer shall attend and rectify the problem within 7 (seven) days or provide a stand by system of the similar configuration.

The report on any problem will be informed through phone or fax number of which shall be given by the tenderer.

The branch office of the concerned manufacturing firm will be fully responsible to provide maintenance service, in case of any negligence, in providing the service by the tenderer.

On failure to comply with those instructions, the Bank Guarantee provided for the warranty period shall be invoked.

### Financial Terms:

**4.1 EMD**

The tenderer has to submit a Demand Draft / Banker’s Cheque / Pay order as mentioned against each laboratory towards EMDin favour of **Principal, College of Engineering and Technology, Bhubaneswar** payable at Bhubaneswar in any **Nationalized Bank**.

There will be no interest paid to the tenderer towards EMD money.

In no case, the EMD Money in cash or other forms will be accepted at the time of opening of the bid.

No request for adjustment of claims, if any, will be accepted.

The EMD of unsuccessful tenderers will be refunded as soon as possible after the tenders are finalized.

**4.2 Performance Security Deposit**

 **In case of successful Bidder EMD will be kept as Performance Security Deposit and will be refunded after expiry of stipulated warranty periods from the completion date of installation and commissioning on satisfactory performance of the equipment.**

**4.3 Order Items**

CET reserves the right to place part order leaving out some items quoted by the tenderer.

**4.4 PRICE:**

Price quoted should be **FOR College of Engineering & Technology, Bhubaneswar only. Tax components as applicable should be mentioned clearly in the financial bid.**

Price should be quoted for unit item.

Purchase order will be placed as a single lot for each type of item or for all the items together, as the case may be.

In case of items of import, the tenderer should take full responsibility for customs clearance, shipment &handling, tax payment, etc. and specify the charges for the same in the price bid.

**4.5 Sales Tax Concession:**

Central Sales Tax Concession is to be availed on production of the required certificates applicable to Educational Institution.

**4.6 Discount:**

Our Institute is a pioneer Institution in the field of Teaching and Research in Engineering and allied disciplines and do not run with profit motive.

As such we are availing price discount for purchase of equipment/instruments.

The rate of discount or any other Institutional benefit arising out of Govt. Policy etc., on each item may also be indicated in the bid specifically.

**4.7 Payments:**

a) In case of imported items, (i) payment will be made by wire transfer or (ii) payment will be made through opening LCin the name of the manufacturer subject to the condition that a Bank Guaranty for an equal amount will be submitted by the selected tenderer to CET for the period of completion of installation and commissioning.

b)In case of purchase in Indian Rupees, payment of 100 percent of the ordered value will be made after successful installation and commissioning of the equipment subject to submission of satisfactory performance report by the concerned Head of Department

**4.8 Penalty:**

If the delivery, installation and commissioning is not carried out in time as specified in other part of the tender document, the tenderer/manufacturer will be charged @ 1 % (one per cent) per week of the total value of the concerned machine / equipment.

**4.9 Rate Contract with DGS&D or any other Government Organisation:**

In case the tenderer has entered into a Rate Contract with DGS & D or any other Government Organisation such as EPM, rate contract preference, number & copy of rate contract have to be submitted along with tender.

### Instruction to the Tenderer:

5.1. Technical Offer and Price Bids should be separately given in two different covers.Each cover should be earmarked as to know the contents within as either ***“Technical Offer” or “Price Offer”***.

Both these covers should be placed in a third cover super scribed as **“*Tender for --------------------------------------------------------------------------* Laboratoryof Biotechnology Department”*.***

Some of the minimum specifications specified may be redundant, obsolete or incompatible and in these cases, quote the particulars of correct specification of latest trend and technology. Higher specifications instead of minimum specifications are allowed if a minimum specification is not available, obsolete or incompatible. Otherwise, model with higher specification should be in addition to the model with minimum specifications.

Specify brand name and full model name and number for each offer. Include the printed catalogue and price list if any for each of the equipment quoted.

Specify the list of Accessories required along with each of the equipment.

Quote the additional price of the accessories; only those, which are fully compatible with the quoted model, should be furnished.

Specify the list of Accessories to be given free of cost, along with the equipment as “**Free Accessories”**; these should be fully compatible with the quoted models.

Some of the minimum specifications specified may be redundant, obsolete or incompatible and in these cases, quote the particulars of correct specification of latest trend and technology.

Higher specifications instead of minimum specifications are allowed if a minimum specification is not available, obsolete or incompatible.

Otherwise, model with higher specification should be in addition to the model with minimum specifications.

**6.0 Solving Disputes:**

CET, the tenderer and the manufacturer shall make all efforts to resolve amicably by direct negotiation on any disagreement or dispute arising between them under or in connection with this contract.

All disputes arising out of the contract shall be referred to courts under the jurisdiction of the Bhubaneswar court only.

***\* The above terms and conditions except those otherwise agreed upon, shall form a part of the Purchase Order***.

***Sign on each page of this tender document and Return it along with the offer enclosing this part together with the Technical Offer.***

***\*\* The CET authority has all rights to accept / reject any tender without assigning any reasons there of.***

### 7.0 Name of Equipment and Technical Specifications:

Name of equipment and minimum specifications are given below.

The minimum specifications are indicative and not exhaustive.

The models with higher specifications may be quoted.

The quoted materials should be of latest trend and technology.

Each equipment should be complete in itself without needing any extra requirements except the requirement of general test and measuring instruments.

**List of equipments with technical specification required forBiochemistry Laboratory of Biotechnology Department**

**TECHNICAL BID FORMAT**

**Name and Address of the firm:**

**Name of the contact person:**

**Contact No:**

**Email Id:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of the Equipment**  | **Specification required** | **Quantity** | **\*Specification quoted** | **Make** | **Model No.** | **Any remarks** |
|  | UV-Visible double beam spectrophotometer |

|  |  |
| --- | --- |
| Optical system:  | Double beam system with single Monochromator |
| Light Source : | Deuterium & Halogen Lamp |
| Detector : | Photo multiplier tube |
| Wavelength Range: | 190 to 900.0 nm |
| Wavelength Accuracy: | ±0.3 nm or better |
| Wavelength Repeatability: | ± 0.05 nm or less. |
| Scanning Speed: | 10-4000 nm/min or more. |
| Spectral bandwidth: | 1.5 nm fixed or less |
| Photometric Range: | 0 to 10000 %T -2 to 4 Abs |
| Baseline stability:  | : ± 0.0003 Abs/hour |
| Photometric Mode:  | Abs, %T, %R |
| Wavelength Display:  | 0.1 nm increment |
| Photometric Accuracy: | ±0.3%T or ±0.002Abs (0 to 0.5 abs) |
| Stray Light :  | ≤0.005% |
| Operating Mode:  | (1) Single Wavelength; (2) Multi Wavelength; (3) Scan(4) Time Scan |
| Measuring Mode:  | Multi Component Analysis, Concentration (K Factor, Multi standard), Absorbance, %Transmittance |
| Wavelength Scan Speed: | 10, 100, 200, 400, 800, 1200, 2400, 3600nm/min |
| Data Storage : | User defined files, analytical parameters and measurement data |
| Printer Port :  | PCL3 or ESC/P |
| Water thermostatted 6-position automatic cell changerTemperature Control : | Rectangular cell, 10x10mm; .6 pcs Compatible cell Reference : Rectangular cell, 10x10, 1 pcsThermosatted water circulation for sample and referenceOperating temperature : 10 to 90°c |
| Stirring system | Integrated variable speed magnetic stirrer |
| Cell switching : | Software Control |

 | 01no. |  |  |  |  |
|  | **Lyophillizer** |

|  |  |
| --- | --- |
| Condenser capacity | 1 litre or more |
| Condenser temperature | **-55° C or lower** |
| Condenser performance | Upright stainless steel collector coil capable of removing at least 1 liter of water in 24 hours and holding 1 liter of ice before defrosting. |
| Refrigeration system | HCFC/CFC-free refrigeration system to cool collector to **-55° C or lower.** |
| Material construction | Brushed stainless steel, powder-coated steel exterior. |
| Controls  | Refrigeration on/off Vacuum on/off |
| Drainage | Mounted, retractable, collector drain hose. Vacuum hose with clamps. |
| Adapters | Adapter for flask, tubes and micro tube holders to be provided. 8-12 port drying manifold with round bottom flasks and vials. |
| Vaccum performance | Vacuum Level: Up to 0.001 mbar or moreVacuum pump with a displacement of at least 60 liters per minute or more. |
| Computer connectivity | RS232 port to connect to computer. |

 | 01no. |  |  |  |  |

**List of equipments with technical specification required forMicrobiology and Fermentation Technology Laboratory of Biotechnology Department**

**TECHNICAL BID FORMAT**

**Name and Address of the firm:**

**Name of the contact person:**

**Contact No:**

**Email Id:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of the Equipment**  | **Specification required** | **Quantity** | **\*Specification quoted** | **Make** | **Model No.** | **Any remarks** |
|  | **CO2 incubator** |  Stainless steel interior with inner glass door. Stainlesssteel Exterior with mat finish. Fully stainless steel heated door uniform atmosphere and temperature distribution owing to enclosed non-turbulent ventilation system in working chamber.* Adaptive, fuzzy-supported multifunctional digital microprocessor PID-controller
* Integral fault diagnostics for temperature, CO2 and humidity limit control
* 2 Pt100 sensors Class A in 4-wire-circuit, mutually monitoring and taking over the performance at the same temperature value
* Digital 7-day programme timer with real time clock, precise minute setting
* Digital display of all set parameters, such a temperature, weekdays, time, CO2, humidity and set-up values - language to be chosen via set-up
* CO2-supply via sterile filter
* Digital electronic CO2-control with automatic zeroing (infrared measuring system) - adjustment range 0-10% - resolution 0.1%
* Intrinsic adjustment of altitude above sea level
* CO2-supply interruption upon door opening
* Digital display of setpoint and actual values (LED) for temperature (resolution 0.1°C) and CO2 concentration (0.1%)
* Calibration facility through controller for three freely selectable temperature values, 2-point-calibration for humidity: 20 and 90%, 3-point calibration for CO2: 5%, 7%, 10%
* Programme stored in case of power failure

Chip-card for sterilization of working chamber with fixed values (4 hours/160°C), without removal of sensors and mountings.HEATING CONCEPT* Large-area multi-function heating system on four sides with additional door and back heating to avoid condensation
* Incl. Works calibration certificate for +37°C
* Integrated humidity limit control (88-97% RH) with digital display of relative humidity - resolution of display 0.5%, setting accuracy 1%

MULTIPLE OVERTEMP. PROTECTION * With audible and visual alarm
* Over temperature monitor TWW, protection class 3.1 or adjustable temperature limiter TWB, protection class 2, selectable on display
* With audible and visual alarm in case of over-/under temperature or CO2, open door and empty gas cylinder
* Additionally integrated over- and under temperature monitor "ASF", Automatically following the set point

 value at a preset tolerance range; Alarm in case of over or under temperature, heating is switched off in Case  of over temperature* Mechanical temperature limiter TB, protection class 1 according to DIN 12 880 to switch off the heating
* approx. 10°C above nominal Temperature

TEXTURE STAINLESS STEEL CASING* W x h x d: 630 x 938 x 650 mm
* Fully insulated stainless steel door with 2-point locking (compression Door lock), lockable
* Inner glass door with opening (8 mm) to take gas sample
* Rear zinc-plated steel

INTERIOR HEATING CONCEPT* W x h x d: 480 x 640 x 500 mm, 153 l
* Easy-to-clean interior, made of stainless steel,

reinforced by deep drawn Ribbing, material 1.4301  (ASTM 304), hermetically welded* 3 perforated stainless steel shelves and 1 stainless

steel water trayTEMP. RANGEMin. 8°C above ambient up to + 50°CPOWER SUPPLY230 V (+/- 10%), 50/60 Hz / approx. 1500 W | 01no. |  |  |  |  |
|  | **Inverted microscope with camera**  |

|  |  |
| --- | --- |
| **Body** | Heavy U-shaped body |
| **Adjustments** | Co-axial and fineFocus drive close to the user. |
| **Stage(Mechanical)** | Large fixedmechanical stage 210 mm x 135 mm, quintuple revolvingnose piece ball-bearing mounted for precise movement. |
| **Binocular Photo Tube** | 30° (TF 1x) 100/100 changeable |
| **Eyepiece** | WF 10x/18 2 pieces |
| **Objective** | **Objective A** | 4/0.10 |
| **Objective A** | **10/0.25** |
| **Objective SPL** | **20/0.35(LD)** |
| **Objective SPL** | **40/0.60(LD)** |
| **Illumination Unit** | 12V/30 W condenser NA 0,25, for bright field for adaptation to the illumination unit. |
| **Object guide** | left hand drive |
| **Power supply** | 12V/30W halogen lamp, continuously intensity control electronically |
| **Accessories** | Spare Bulb 12V/30W, Main(s) cable, 2 spare fises |
| **Camera** | CMOS-Camera 1/2” Chip, colour3,1 MP resolution, 11fpsC-Mount connectionIDS uEye Software (for Windows /Vista/7)USB-cable included |
| **Software** | Standard software for the use of the instrument  |

 | 01no. |  |  |  |  |

**List of equipments with technical specification required forMolecular Biology Laboratory of Biotechnology Department**

**TECHNICAL BID FORMAT**

**Name and Address of the firm:**

**Name of the contact person:**

**Contact No:**

**Email Id:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of the Equipment**  | **Specification required** | **Quantity** | **\*Specification quoted** | **Make** | **Model No.** | **Any remarks** |
|  | Cooling centrifuge |

|  |  |
| --- | --- |
| Speed  | 15,000 rpm or higher |
| Max. Capacity | 400 ml. |
| Lowest Temp | -8 oC, |
| Rotor head | Capacity :24 x 1.5ml, 16 x 15 ml  |
| Main Body | Stainless steel outer covering, Corrosion free exterior and interior material |
| Dimension (W X D X H) | 350x 450x 300 mm (Approx.) |

 | 01no. |  |  |  |  |
|  | Protein fraction collector |

|  |  |
| --- | --- |
| Display | LED display |
| Capacity | Holding capacity for 18 mm tubes, 30 mm glass/ polypropylene or polystyrene tube and 1.5 ml microcentrifuge tubes. |
| Collection basis | Drop wise collection of 1-999 drops with drop wise increment |
| Flow rate | Up to 150 ml/min in a variety of collection vessel. |
| Operating temperature | 4-400C |
| Construction | Polypropylene, hard coated polycarbonate and/or polyetheketone |
| Dimension (W x D x H) | 20 x 30 x 25 cm (approx.) |

 | 01no. |  |  |  |  |
|  | Semi-dry blot transfer |

|  |  |
| --- | --- |
| Mode of Transfer  | Semi Dry         |
| Running Dimension | Horizontal |
| Capacity | Up to 4 mini-gels, Up to 2 midi-gels, Up to 2 E-PAGE gels |
| Gel Size | Midi (8 cm x 13 cm), Mini (8 cm x 8 cm) |
| Transfer Time | 15–60 min |
| Buffer requirement | 200 ml or less |
| Dimensions (W x L x H) | 37 x 24 x 11 cm (Approx.) |
| Blotting area (W x L) | 24 x 16 cm (Approx.) |
| Electrode distance | Determined by thickness of the gel and membrane sandwich and filter paper stack |
| Platinum-coated titanium anode plate electrodes and stainless-steel cathode plate electrodes provide consistent and reliable transfers, durability, and long life. |
| Extra plastic templates required by other semi-dry blotters to prevent electrode short circuits are unnecessary |

 |  |  |  |  |  |

**Note:**

**\*Do not directly copy the given specification to quoted specification column.**

**Provide the catalogue of the quoted model and highlight its specification.**

**List of equipmentsrequired forBiochemistry Laboratory of Biotechnology Department**

**FINANCIAL BID FORMAT**

**Name and Address of the firm:**

**Name of the contact person:**

**Contact No:**

**Email Id:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of the item** | **Make** | **Model** | **Basic unit price in rupees** | **\*All taxes applicable in rupees** | **Any discount offered in rupees** | **Total unit price in rupees** |
|  | UV-Visible Spectrophotometer  |   |   |  |  |  |  |
|  | Lyophillizer |  |  |  |  |  |  |

**\* Mention details of the taxes applicable (Ex: VAT, Sale Tax, Entry Tax, Octroi, Excise duty, Delivery Charge, etc….) in the term and condition section.**

**List of equipmentsrequired forMicrobiology and Fermentation Technology Laboratory of Biotechnology Department**

**FINANCIAL BID FORMAT**

**Name and Address of the firm:**

**Name of the contact person:**

**Contact No:**

**Email Id:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of the item** | **Make** | **Model** | **Basic unit price in rupees** | **\*All taxes applicable in rupees** | **Any discount offered in rupees** | **Total unit price in rupees** |
|  | CO2 Incubator |  |  |  |  |  |  |
|  | Inverted Microscope |  |  |  |  |  |  |

**\* Mention details of the taxes applicable (Ex: VAT, Sale Tax, Entry Tax, Octroi, Excise duty, Delivery Charge, etc….) in the term and condition section.**

**List of equipmentsrequired forMolecular Biology Laboratory of Biotechnology Department**

**FINANCIAL BID FORMAT**

**Name and Address of the firm:**

**Name of the contact person:**

**Contact No:**

**Email Id:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of the item** | **Make** | **Model** | **Basic unit price in rupees** | **\*All taxes applicable in rupees** | **Any discount offered in rupees** | **Total unit price in rupees** |
|  | Fraction collector |  |  |  |  |  |  |
|  | Cooling centrifuge |  |  |  |  |  |  |
|  | Semi-dry blot transfer |  |  |  |  |  |  |

**\* Mention details of the taxes applicable (Ex: VAT, Sale Tax, Entry Tax, Octroi, Excise duty, Delivery Charge, etc….) in the term and condition section.**