DR.B.R.AMBEDKAR CENTER FOR BIOMEDICAL RESAERCH
UNIVERSITY OF DELHI, DELHI-110007

TENDER NOTICE

Tender No. ACBR/15/Dec./Equipment/
29th December 2015

Dr.B.R. Ambedkar Center for Biomedical Research, invites sealed tender from reputed and experienced manufactures or their authorized dealers for supply of Scientific/Lab. Equipment as per details given below:-

S.No.	Name of Equipments	Qty,	EMD (Rs.)
1	Weighing Balance (Organic Lab)	01	5,000/-
2	Weighing Balance (Bio Logy Lab)	03	15,000/-
3	Laminar Hoods	02	20,000/-
4	BOD Incubator with Shaking (Microprocessor Controlled)	03	15,000/-
5	Incubator with three Gas System	01	10,000/-
6	Incubator CO_2	01	10,000/-
7	20 KVA UPS	01	20,000/-
8	Aspirator	03	10,000
9	Ultracentrifuge (Floor Model)	01	40,000/-
10	Upright/ Inverted Trinocular Microscope for Bright Field Application	02	10,000/-
11	Inverted Microscope for Bright Field /Phase Contras/ Fluorescence Microscopy Application with Image Analysis System	01	40,000/-

Financial & Technical Bid should be submitted in separate Envelops.

Performance Guarantee for each item equivalent to 10% of the total order value to be submitted by the successful Vendor at the time of placing the purchase order.

Tender documents (non transferable) along with detailed Specification, Terms & Conditions may be purchased by the bidder on submission of a written application to the Section Officer, ACBR upon payment of Nonï refundable fee of Rs.500/- in the form of Bank Draft in favour of Director, ACBR, Payable at Delhi, between 10.00 a.m. to 4.00 p.m. on all working days as per following Schedule either in person or by post. The postal charge of Rs.50/- will be extra, if required, to be sent by post .Center will not be responsible for any postal delay. **The Center reserves the right to accept or reject any Bid without assigning any reason**.

a. Date of Commencement of sale of Tender Document: Tuesday 29th December 2015 (10.30 a.m.)
b. Last date of sale of Tender Document : Friday, 22nd January 2016 (1:00 p.m.)
c. Last date of Submission of Tender Document : Monday, 25th January 2016(2:.00 p.m.)
d. Date and Time of Tender Opening : Monday, January, 25th 2016 (4:00 p.m.)

For Specification of each item, please visit University/ ACBR Website www.du.ac.in **/ www.acbrdu.edu**

Director (offg.)

Specification:-

S.No. – 1 Analytical Balance for Organic Chemistry labs Qty - 01

Maximum capacity 200-250g
Readability 0.1 mg
Repeatability 0.1 mg
Linearity 0.2 mg
Internal calibration
Interface for connecting to a PC or printer
Size of weighing pan 90-100 mm
Warranty: 2 years standard warranty + 2 Years additional warranty/ AMC

S.No. – 2 Weighing Balance (Biology labs) Qty - 03

Maximum capacity 320g
Readability 1mg
Linearity 2 mg
Repeatability 1 mg
Interface for connection to a computer
Size of weighing pan 120 mm
Warranty: 2 years standard warranty + 2 Years additional warranty/ AMC

S.No. – 3 Laminar Hoods Qty - 02

The negative pressure cabinets should be completely made of stainless steel and fitted with U.V Germicidal light, Static pressure Manometer. The Laminar unit should be fitted with pre filters and HEPA filter. Air should be drawn though Pre- filter and is made to pass through highly effective HEPA (High Efficiency Particular) filter.

Exhaust System (suitable for 6 ft or longer) and with a HEPA filter, UV light and heating coil to burn virus and bacteria. Side panels should be made out of thick transparent plexis glass or better material and duly framed.

At least two electrical sockets to be provided for use of small equipment inside the chamber.

Warranty: 2 years standard warranty + 2 Years additional warranty/ AMC

Working Size:- 4 feet × 2 feet ONE UNIT
3 feet × 2 feet ONE UNIT

S.No. - 4 BOD Incubator with shaking (Microprocessor controlled) Qty - 03

- The outer chamber should be made up of M.S sheet duly painted and inner chamber of thick stainless steel sheet. The gap between two walls should be well insulated by filling with high grade glass wool to avoid thermal loss.
- The plexiglass inner door or glass window on front side to make it possible to inspect the specimen without disturbing the inner temperature
- The lid of the unit to be fitted with fluorescent tubes on the inner side.
- The unit temp range **from 5 deg. to 50 deg** and controlled with digital temperature controller with an accuracy of +/- 0.5 deg C.
- Compressor of high quality (e.g. Kirloskar or equivalent) for efficient cooling below ambient temperature.
- The inner chamber should be fitted with white light and one for UV light with a fan for air circulation to maintain temperature uniformity throughout.
- Shaker Platform should contain minimum of 14-16 flasks of 500 ml or 250 ml & 100 flask in this unit.
- Two Stationary platforms for keeping the Petri plates.

- **Warranty-**2years standard warranty + 2 Years additional warranty/ AMC

S.No. – 5 INCUBATOR with three-gas system Qty - 01

1. Microprocessor controlled 150-180 Liter direct heat stackable CO_2 Incubator with High Temperature Decontamination facility@120°C having temperature control from 3-4 deg. C above ambient to 50°C, with control accuracy ±0.1°C.
2. Temperature stability at 37 °C: ± 0.1 °C or better. And Temperature uniformity: ± 0.3 °C or better.
3. The unit: **Air jacketed** with high quality thermal jacket insulation and fan assisted circulation or gentle convection circulation
4. Incubator should have fully automatic Auto Start system.
5. The Unit must have an independent over-temperature protection function with independent back-up temperature sensor. ,
6. The incubator should have an in-chamber HEPA airflow system to filter chamber every minute.
7. **Display**: LCD/LED/ Touch screen based for all three gases.
8. **Number of shelving racks** minimum: at least 3 with each shelf having inner glass doors for maintaining temperature uniformity & reducing gas consumption to allow selective access to individual shelves, without opening the entire chamber.
9. **Humidification design**: An integrated, covered, humidification design, **(optional) Water level sensor and alarm** and display system for water level monitoring. Refilling should be simple without need for removing the shelves. The unit should be available with humidity compensated thermal conductivity (TC)/IR Sensor
10. The CO_2 gas and optional N_2/O_2 gases should be pre-humidified before entering the chamber, providing a more constant, uniform environment. CO_2 range: 1 - 20 % or better with CO_2 control: ± 0.1 % or better.
11. All control and measurement probes and sensors should be located inside the culture chamber to provide true and accurate values.

12. Control of O_2 concentration should be in a range of 1-21% with a maintenance-free/rust free sensor requiring no electrolyte refill or membrane replacement and ensuring long term stability at varied O_2 concentrations.
13. Incubator should be provided with high quality microbiological filters on all gas inlets, outlets and sample ports.
14. The incubator should incorporate automated overnight (under 12 hour) high temperature sterilization cycle of 180°C.
15. Power supply: 230 V, 50/60 Hz.
16. The sterilization should meet the 12D true standard of sterilization, according to the U.S., EU, DIN and other pharmacopeias. The CO_2 Incubator should be CSA certified and CE marked for quality assurance.

Accessories:-

1. CO_2 Cylinder with regulator
2. N_2 Cylinders with regulator
3. Suitable stabilizer
4. **Warranty:-** 2 years standard warranty + 2 Years additional warranty/ AMC

S.No. - 06 Incubator (CO_2) Qty-01

1. Microprocessor controlled 170-200Litre direct heat (air-jacketed) CO_2 Incubator with temperature control from 4°C above ambient to 50°C, with control accuracy ±0.1°C & should have high temperature Disinfection facility@120°C or better
2. It should have six-sided direct heating with fan less, gentle convection circulation to provide stable temperature control, excellent uniformity and rapid recovery with no over shoot.
3. It should have CO_2 control range from 0.2 to 20% with control accuracy and uniformity of ±0.1% and should have rapid recovery of at least 0.7% per minutes.
4. It should have Infra-red (IR) CO_2 sensor with programmable auto-zero function provide superior accuracy & stability or an equivalent T/C sensor.
5. It should come with minimum 4 adjustable height shelves & humidity reservoir (removable) to achieve at least 95% RH.
6. It should have independent door heater eliminate condensation on inner door surface.
7. It should have digital display for set parameters with audio visual alarm.
8. It should have on board built-in diagnostic to help to identify system status and expedite on-site services.
9. It should have HEPA filter on CO_2 inlet.
10. It should have RS232 communication port.
11. It should have 25mm access port.
12. It should have non-volatile memory which must guarantee data integrity regardless of length of time or frequency of power interruption.
13. It should have following additional safety such as back-up microprocessor, separate over temperature cut-out, alarms set point reset automatically, password protection etc. etc.
14. It should come with CO_2 gas cylinder with 2 Stage regulator & suitable servo voltage stabilizer for smooth functioning.
15. It should be ISO 9001 & CE Certified.

16. The vendor should enclose user list of at least 50 users of same model installed throughout India in various reputed Institutes / University / ICAR / CSIR / ICMR / Research labs.
17. Vendor should also enclose the Original literature/catalogue & highlight the above specifications.
18. **Warranty:-** 2 years standard warranty + 2 Years additional warranty/ AMC

Accessories:-

1. CO_2 Cylinder with regulator
2. Suitable stabilizer
3. **Warranty:-** 2 years standard warranty + 2 Years additional warranty/ AMC

S.No. - 7 20 KVA UPS Qty-01

This specification describes **One 20 KVA three phase input & single phase output and optional One 20 KVA Three-phase input and Three phase output**, on-line, double conversion, continuous operation, solid-state, DSP controlled, Uninterruptible Power Supply (UPS) along with external isolation transformer & battery bank for minimum one hour back up.

The following documents must be submitted along with the offer.

a. Manufacturers Authorization letter to submit offer mentioning this tender.
b. Reference list where similar UPS systems have been supplied in India.
c. Product catalogue sheets or equipment brochures.
d. Circuit diagram showing the UPS units, load sharing mode along with the input and output panel requirements.

The UPS shall operate as an on-line system in the following modes:

a) Normal, b) Battery, c) Recharge, d) Bypass:

Qualifications:

a) **Manufacturer experience**: The manufacturer should have a minimum 5-10 years of Experience in the design, manufacture and testing of UPS systems.
b) **Service Centre**: Should have a fully functional service centre with spares stock for attending the breakdown calls. Details of the service centre must be provided.
c) **ISO Certification**: The manufacturer and bidder shall be ISO 9001 and ISO 14001certified.
d) Bidder should provide **user's list** with full contact details and phone numbers of the model quoted in the tender.

Warranty:

a) **UPS Module**: The UPS manufacturer shall warrant the UPS module against poor workmanship and materials for 2 years from the date of installation. The standard warranty shall include coverage of all internal parts and the supporting equipment. An additional 2 years warranty/AMC is also required to be quoted.

b) **External Batteries**: For batteries connected to the UPS, the warranty should be atleast Ó 02Yearsfrom the date of supply, installation and acceptance.

Preventive Maintenance of SMART UPS (PM)

a) Preventive Maintenance of complete setup of UPS system for a period of two years to be undertaken.
b) Minimum 04 Numbers of Preventive maintenance shall be carried out in a year. Breakdown calls to be attended within 12 hours from the time of call.

Standards:

a) Safety : EN 50091-1or equivalent
b) Emission & Immunity : EN 50091-2 &CE ï Mark.50 Hz Models or equivalent

Environmental Requirements

a) Storage Ambient Temperature : 0^0C to 50^0C
b) Operating Ambient Temperature : 0^0C to 40^0C
c) Relative Humidity : 0 to 95% non condensing.

SYSTEM RATINGS AND OPERATING CHARACTERISTICS

a) The rating of UPS should be 20 KVA.
b) UPS should be online-Double Conversion with Digital Signal Processor control.
c) Should have IGBT based PFC Rectifier and IGBT based Inverter
d) SMF Batteries should be sized for back-up of one hour at full load
e) Battery manufacturerôs catalogue and stacking details to be provided.
f) Battery banks and their mounting racks should be separate for each UPS.

System Input

a) Input Voltage Rating : 220 to 480 vac
b) Input Voltage Range : 228 to 476 V for 20 KVA. Inthis range UPS should not switch to Battery backup mode.
c) Input frequency Range : 40 - 60 Hz. In this range UPS should not switch to Battery backup mode.
d) Input power factor : > 0.98 at 100% load
e) No. of Battery selected option: 30-36

System Output

a.	Output Voltage Rating	:	220 - 230 V for 1 phase &400-415 V for 3 phase
b.	Output voltage regulation	:	+/- 1 % or better
c.	Output Frequency Regulation	:	50 Hz +/- 0.1 Hz or better, unsynchronized
d.	Synchronised Freq.	:	± 1 Hz, ± 2Hz, ± 3Hz or better
e.	Max. Voltage transient recovery time:		10 milliseconds to nominal
f.	Output Voltage THD	:	<2% for linear load &<5% Nonlinear Load
g.	Overload capability	:	125-150% for 60 seconds in normal operation
h.	Acoustical noise	:	dB(A) of noise, typically, measured at 1 meter from the operator surface should not be more than less than 65 dB(A).

S.No.- 08 Specifications for Aspirator Qty-02

Displacement method	:	Pressured water jets
Displacement	:	15 ï 17 L/min X 2 (at water temp. 6^0C)
Ultimate vacuum	:	maximum 7 ï 10 mm of mercury
Safety	:	Check valve & thermal protection
Aspirator element	:	two metal aspirators
Motor	:	Induction type (output 140-200 W)
Water bath	:	capacity 10 ï 12 L
Material (bath)	:	Polypropylene
Operating Temp.	:	5 ^{0}C ï 35 ^{0}C
Warranty	**:**	2 yrs standard warranty+ 2 yrs additional warranty/AMC

S.No.- 09 Ultracentrifuge (Floor Model) Qty-01

One Floor Model Ultracentrifuge is required with the following specifications:

- Microprocessor controlled drive system imbalance tolerant
- Speed: RCF Minimum 100,000Xg
- Rotor Capacity: Swing out (12 to 15 ml/tube)
- Acceleration & Deceleration time: min 10 multiple steps
- Drive cooling: Air Cooling
- Electrical requirement: 200-240V, 30A, 50/60 Hz
- Refrigeration system: Thermo electric (CFC/HFC/ODC Free)
- Temperature Range: 0 to +40°C
- Set Time: upto 999hours with Hold function
- Speed control accuracy: ± 2 rpm of set speed
- Temperature Control: ± 0.2°C
- Program: Up to 1000 program
- Ambient Temperature: +10°C to 40 °C
- Certification: Electromagnetic compatibility, Product safety, US/Europe equivalent standard

General:

Warranty: 2 yrs standard warranty+ 2 yrs additional warranty/AMC.

User list of Ultracentrifuge only. Complete with contact details and date of purchase Ultracentrifuge only.

Optional: Swing out rotor (Volume Capacity): 30-40 ml/tube
Fixed Angle (Volume Capacity) : 30-40 ml/tube.

All Rotor should be supplied with suitable adaptor for Lower volumes.

S.No.- 10 Specification for Upright / Inverted Trinocular Microscope for Bright Field Application.

Qty-02

Optical System: Infinity corrected Optical system**.**
Eyepiece Tube: Trinocular Tube with 30^0 inclination or better with 360^0 rotatable Interpupillary Distance :47-75mm,
Eyepiece: 10X paired eyepiece with 20mm F.O.V. with Dioptre adjustment Facility on Both Eyes
Illumination: Uniform LED illumination is essential with more than 50,000hrs with document support for working life of LED illumination.

Nosepiece: Inward Quadruple nosepiece to accommodate 4 objectives at a time
Stage: Rectangular stage, where refocusing at a given spot on the slide is feasible on change of objective or change of slide, preferably with double slide holder.
Condenser: Abbe condenser with N.A. 1.25.
Objectives: Plan Achromat Objectives suitable for Bright Field microscopy application.

- Plan Achromat 4x N.A. 0.10 W.D. 30.00mm
- Plan Achromat 10x N.A. 0.25 W.D. 7.00mm
- Plan Achromat 40x N.A. 0.65 W.D. 0.65mm
- Plan Achromat 100x N.A. 1.25 W.D. 0.23mm

OPTIONAL ACCESSORIES FOR COMPOUND MICROSCOPE:

1. Teaching Head attachment: Either Side-by-side or Face- to-Face teaching head attachment for second observer.
2. Oculo-micro meter at one Eye piece for sample measurement.

NOTE:

- Microscope should have upgradability option for Phase Contrast, Dark field, Fluorescence & camera attachment in future
- Vendor should enclose ISO/CE conformity certification of quoted Microscope.
- Vendor should enclose Satisfactory Installation list and Performance Certificates of quoted Microscope supplied in Premier Reference research institute complete with contact details.
- Vendor must enclose Proper Principal Catalogue and website details in support for verification of specifications conformity of quoted Microscope in tender.
- Certificate of Authorised dealer.
- 2 yrs standard warranty+ 2 yrs additional warranty/AMC

S.No.-11 Inverted Microscope for Bright Field/Phase Contrast/ Fluorescence Microscopy application with Image Analysis system

Qty-01

A compact integrated system including a motorized inverted Microscope along with Fluorescence illumination system, an automated objective turret along with sextuple fluorescence filter turret, universal condenser for Bright Field/Phase Contrast/ DIC microscopy application with High Resolution cooled Monochrome CCD/CMOS camera with high frame rate for high sensitive Fluorescence imaging along with data analysis system.

Microscope Body: Microscope body with multi-port design with 2 to 4 way or more light distribution with active side ports for attaching digital cameras along with option for future camera up-gradation along with Binocular tube with 10X Eye pieces with F.O.V. 22 mm & diopter adjustment facility.

Eyepieces: 10X with F.O.V 22 or better and diopter adjustment facility on both eyes, anti-fungus type.

Illumination: 12V 100W Pre-centered Halogen transmitted light Illumination.

Stage: System must include XY stage with Universal Holder to hold all ranges 0f 96 and 384 wells format plates & accessory vessel holders.

Condenser: Universal turret condenser with 5 Position for all microscopy techniques.
Nosepiece: Sextuple Revolving DIC Nosepiece to accommodate Six Objectives at a time.

Objectives: High performance Extra Long working distance Plan Fluor/Semi Apochromat Objectives suitable for Bright field, Phase Contrast & fluorescence Observation

- Achromat 4X (N.A. 0.10, W.D. 30.00).
- Plan Fluor Phase 10 X (N.A. 0.30, W.D. 16.20 mm).
- Plan Fluor Long working Distance Phase 20X (N.A. 0.45, W.D. 8.2-6.9mm).
- Plan Fluor Long Working Distance Phase 40X (N.A.0.6, W.D.3.6-2.8mm).
- Plan Apo 60X (N.A. approximately 1.4, suitable working distance).

Epi-fluorescence attachment: Epi-Fluorscence Attachment with at least 6 Positions Turret filter block with fluorescence filter cubes position change in 0.3 sec per position or better, Noise Terminator mechanism incorporated for high signal to noise ratio images with 100W or better Mercury illumination.

Band pass fluorescent filters for FITC/GFP, TRITC/Rhodamine, DAPI/Hoechst, Cy5 applications with no cross talk between the different fluorophors.

The microscope, camera and software should be from the same manufacturer.

Camera Attachment: Digital Mono Chrome Camera Capable Of Handling Very Low Light Fluorescence Images with 2/3ò CCd Chip, 1.40 Million (1388x1040) Total Pixel Resolution or better, Pixel Size of 6.45um X 6.45um, Binning Mode : 2x2, 4x4, Peltier Cooling, Linear Full Well

Capacity of 17,000e- or better, Exposure Time 1ms to 600 Seconds or better. Fire Wire Port and C-Mount for covering wider field of view.

Image Analysis Software with following features:

Imaging Software for fully automated acquisition and device control, six-dimensional image acquisition and analysis including:

- Automated Image Acquisition.
- Time Lapse Imaging, tiling & stitching,
- Manual/automated cell counting & measurement, Ratio Viewing.
- Z-Stack, Multi-channel Fluorescence, Multi-Position, Annotation,
- Report Generator facility, Data Base, Vector layer & Multi-Dimensional File Format

Image analysis software should have at least one license for offline usage.

Data Processing Unit: Branded computer with i-7 processor with at least 8 GB RAM, 1 TB Hard Disk, Optical Mouse, Keyboard, DVD Writer, 21òTFT Color Monitor, 1 GB NVIDIA Graphic Card, Multimedia Kit, 64 Bit Windows OS & cable along With UPS.

Warranty:- 2 yrs standard warranty+ 2 yrs additional warranty/AMC.

Users list with complete details of contact address, phone number and email id

Microscope, camera & image analysis software should be from same manufacturer for better compatibility, integration & upgradability option.

Optional Accessories:

DIC Attachment Motorized DIC accessories i.e. Analyzer Block, Polarizer and DIC prisms modules for 40x-60x objectives and nosepiece.

Tender Terms and Conditions:-

1. The vendor should be the Original manufacture, authorized distributor or Dealer with supporting documents.
2. The Vendor should have proven ability of Supply of Science Equipments in reputed organizations including Government Department. Copies of purchase order should be include as a proof.
3. Manufacturer experience: The manufacturer should have a minimum 5-10 years of Experience in the design, manufacture and Quality control.
4. Service Centre: Should have a fully functional service centre with spares stock for attending the breakdown calls. Details of the service centre must be provided.
5. The Vendor must submit Earnest money deposit (EMD) in form of D.D. drawn in favour of the Director, Dr. B.R. Ambedkar Centre for Biomedical Research University of Delhi and for EMD is required and fill the form (Annexure-II)
6. The firm must submit an undertaking (Annexure-I) on its letter head that they have not been blacklisted by any state Government or Central Government or PSU Department.
7. The quoted price should be CIP/CIF/INR inclusive of all taxes and other charges clearly.
8. Financial bid and Technical bid should be submitted in a separate Envelop.

9. The bidder should be registered with revenue authorities (copy of PAN card, Service Tax Registration, Vat registration etc , should be enclosed)
10. Original brochures and specification sheets must be enclosed along with supporting data.
11. Guarantee or Warranty conditions must be clearly specified.
12. Validity of Tender must be at least 120 days from the date of opening Tender.
13. The center reserves the right to accept or reject any bid without assigning any reason.
14. Our Tender No & Date and name of the item/ equipment should invariably be marked on the top of each envelope containing the Technical/ Financial bids, as well as on the outer envelope.
15. The T/Bid prepared by the Tender/ bidder, as well as all correspondence and documents relating to the T/bid, shall be written in English Language. Supporting documents and printed literature shall also furnished in English.
16. Containing price with detailed break up as per format enclosed, both in figure and in words.
17. The documentary evidence of the bidderôs qualifications to perform the contract if its bid is accepted, shall be established to the purchaserôs satisfaction.
18. A list giving full particulars, including available source of all spare parts, special tools etc, necessary for the proper and continuing function of the goods . Following commencement of the goods use by the purchaser.
19. A confirmation that if the T/bidder offers system and /or other software systems offered by the bidder and the t/ bidder is willing to accept responsibility for its successful operation.
20. To sign the contract.
21. Firm must provide a user List with contact details of coated equipment
    (Name, address, email, & phone Number)
22. Performance Guarantee for each item equivalent to 10 % of the total cost of order value to be submitted by the successful Vendor at the time of placing the purchase order

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Annexure-I

Certificate from the bidder on their letterhead stating that the Company has not been blacklisted by any Government Organization, Non-Government or Public Sector.

To,

The Director
Dr. B.R.Ambedkar Center for Biomedical Research
University of Delhi
Delhi-110007

Subject:----------

Dear Sir,

This is certified that M/s---------- has not been blacklisted and no criminal case is pending in any Government Organization, Non-Government or public Sector organization before submission of the bid document.

Yours faithfully

Signature

(Name & Designation)----------

(Company Seal)

Date

Annexure II
The Director
Dr. B.R. Ambedkar Center for Biomedical research
University of Delhi
Delhi-11007

Dear Sir,
Sub:- Your tender ref No----------
With reference to the above tender, having examined and understood the instructions, terms and conditions forming part of the tender, we hereby enclose our offer to supply the following items as per details in your above referred Tender.

Basic item No	Item Description	Make & Model No

We further confirm that the offer is inconformity with the terms and conditions as mentioned in your above referred letter and enclosures. We enclose EMD/ Bank Guarantee for----------favoring Director, Dr. B.R. Amberkar Center University of Delhi issued by----------Bank----------Branch. DDNo---------- Dated:---------- and payable at Delhi, towards Earnest Money Deposit.
Yours faithfully,

Authorised Signatories
(Name & Designation, Seal of the firm)

Date: