UNIVERSITY OF DELHI

DEPARTMENT OF ANTHROPOLOGY

Ref: DU/ Anth/Equip **10.12.2015**

CALL FOR QUOTATION

Department of Anthropology invites sealed trender offers from eligible manufacturers/ authorized distributors/ reseller for the supply of equipments to be used in the Department of Anthropology, University of Delhi, Delhi under XII plan sanctioned to the Department. The vendors intending to bid may download the same form university website and submit their bid/tender by **Thursday, the 31st December, 2015 at 5pm to:**

Head
Department of Anthropology
University of Delhi
Delhi-110007

TENDER SPECIFICATIONS:

Sealed tenders are invited containing two types of bid i.e. Technical bid and financial bid.

Technical bid should consist of all technical details including manufacture, model specifications, country of origin along with term and condition and delivery schedule. It should be in a sealed envelope with clear making on the left hand side as ''TECHNICAL BID''.

Financial bid must contain item wise price separtely for all items mentioned in technical quotation, terms and condition, mode of payment and delivery schedule. Financial bid may also include custom duty and clearance charges. It should be in a sealed envelope with clear marking on the left hand side as ''FINANCIAL BID''. Both of these sealed ''TECHNICAL BID'' and ''FINANCIAL BID'' must be put in bigger envelope, which should also be sealed and super scribed. Separate envelops muyst be used for each item mentioning its name. A vendor may submit tender for all or any number of items give below. Non-compliance of the above may result in rejection of the tender.

Vendors should submit all the required documents on their letter head. No separate performa will be provided to them.

Kindly submit separate tenders along with brochure for each equipment.

TERMS AND CONDITIONS FOR TENDER:

The vendor should

i. Have reputed background and should be established in business for at least five years.

ii. Have executed at least three projects in last five years.
iii. Submit,
    a) Three years income tax return
    b) Complete user list with name, address and telephone number.
    c) Manufacturer authorization form.
    d) Company profile for at least five years.
    e) Certificate that company is not blacklisted by any government organization.
    f) Details of support and service centers.
    g) Warranty compliance statement.

1. Biochemical autoanalyser

Technical Specifications for Biochemical autoanalyser

Quantity: 1

- Fully Automated, latest and floor based analyzer to perform the analysis of substrates, enzymes and special parameters from whole blood, serum, plasma, and urine samples.
- It may be Open or Closed system in terms of assays to be used for data generation.
- System should be Discrete, fully selective random access with a provision to test STAT samples (higher STAT samples may be preferred).
- System should have different on-board technologies like Photometry, Potentiometry, etc.
- System should have facility for measuring HbA1c from whole blood.
- Throughput of the System should have at least 300-400 tests /hr photometric tests. (without ISE) (Higher number photometric tests will be preferred)
- Onboard sample capacity should be 50 or more (may have option for continuous loading).
- It should have >50 refrigerated reagent positions.
- Sample volumes should be 2ul - 42ul per test for routine chemistries (minimum sample volume will be preferred).
- Reagent pipetting volume should be minimum quantity.
- Reaction method may be based on dry bath temperature mixture
- Faster analysis time will be preferred.
- Onboard sample dilution may be available.
- Flexibility to use different sample containers like primary tubes with different sizes, and sample cups for easy processing.
- System may have Reflex testing
- Detection of sample clot detection and may have probe crash facility also
- System should have different wavelength spectrophotometer for mono and bi-chromatic measurements.

- Light source should be halogen lamp and may have lamp save feature.
- System should have TFT/LCD colour monitor for programming the tests and entering the data.
- Onboard barcode scanner for easy operation.
- System should have onboard data storage for samples, calibrator and quality control data (Higher storage capacity will be preferred).
- System should have external printer to take printout of patient results and QC reports.
- System should have at least bidirectional interface.
- Additional set of cuvettes (permanent or semi-permanent depending upon equipment) may be preferred
- Equipment warranty (including parts) of at least 1 year.
- Compatible online UPS with its batteries (including their independent warranties for at least 1 year)
- Compatible Water Plant and its consumables (including their independent warranties for at least 1 year)
- Give consumable's price list and duration of price fixation for all the tests that can be conducted (including calibrators and controls).

2. Spectorophotometer

Technical Specification for spectorophotometer

Quantity: 1

1. A UV-visible spectrophotometer with microplate reading.
2. A monochromator based UV/Vis spectrophotometer with Xenon Flash lamp as light source for better performance is desirable.
3. The system should be able to read 96 & 384 well plates.
4. Instrument should be compatible for low volume measurement plate for a volume of 2µl-10µl.
5. Instrument should be able to provide the wavelength range from 200nm to 1000nm with 1 nm steps.
6. System should have spectral scanning option for standardizing new assays.
7. The instrument shoul have inbuilt incubation and linear shaking options for ELISA, enzyme kinetic assays etc.
8. Incubation temperature should be from ambient +4 ^{0}C to +45 ^{0}C.
9. Measurement speed should be 6 sec. for 96 well and 10 sec. for 384 well plate.
10. System should able to run in stand-alone mode OR with computer & software controlled.
11. The instrument should have a memory of minimum 99 inbuilt protocols in stand-alone mode and color display for better visualization.
12. The instrument should have USB port for the easy data transfer.
13. System should have self diagnostics option to give a guaranteed high quality data.
14. System should have Power Save function for reduced energy consumption when the instrument is ‘on’ but not in use.

15. IBM PC compatible computer with Pentium 4, AMD Athlon XP or a faster processor.1 GB RAM, 5 GB free hard disk space, USB, CD-ROM drive, mouse or equivalent, XVGA monitor with 1024 x 768 resolution.
16. Analysis software should be supplied with the instrument and has unlimited user system license.
17. Software should have option for area selection. i. e different protocols at different area of the same plate.
18. Database based software to run backups of all data, restore back up data (in case of hardware failure of original computer).
19. Spectral scanning of all 96 samples or 384 samples should be able to view in single graph plot.
20. Equipment warranty (including parts) of at least 1 year and extra packet of disposable microplate.
21. Computer and Printer are required.

3. -20^{o} Deep freezer

Technical Specifications -20^{o} Deep freezer

Quantity: 1

1. It should have Capacity minimum of 330-350 ltr
2. Temp range can be from -17 degree to -24®C
3. Defrost manual and automatic is desirable.
4. Wattage 140 single phase is desirable.
5. It should have Minimum 5- 7 Shelves of the
6. Number of Door 1 to 2 door.
7. Compatible Stabilizer is required.
8. Equipment warranty (including parts) of at least 1 year.

3. PCR

Technical Specifications for PCR

Quantity: 2

1. PCR System should have a Block Format of 3x32 well with 0.2ml independent control

2. PCR System should have the ability that can be used by 3 different users at 3 different / same times to perform 3 different experiments.
3. System should have an interchangeable & flexible block configuration which accepts three types of thermal blocks for optimization and throughput – 1x96 / 2x96 / 2x384
4. PCR Instrument should be Wi-Fi enabled and remote connected.
5. Veriflex Blocks on the Thermal Cyclers should be provide for the better gradient approech for PCR optimization. It should be with six separate Peltier Blocks; one can precisely set and control the temperature in each block.
6. Veriflex blocks should be present which can maintain their thermal characteristics between optimizing and isothermal conditions, eliminating the need for optimization steps.
7. Each block should accommodates two veriflex block each which should accommodates 16 wells having the ability to set up PCR with a specific temperature differential of up to 5 degree centigrade between blocks.
8. It must Run up to 6 separate temperatures in the same plate with user defined time to determine the optimal annealing temperature.
9. System should be equipped with Simulation Modes that mimic your old thermal cycler's ramp rate. Simulation modes are available for MJ Research PTC 200, Bio-Rad® ,Eppendorf® ABI 9700, 9600, & Veriti® systems
10. Maximum Block ramp rate required: 6 degree C/sec only heating/cooling.
11. Maximum Sample Rate required: 4.50 degree C/sec.
12. Temperature Accuracy required: +-0.25 degree C(35-99C)
13. Temperature Range should be 0^0C to 100^0C.
14. Temperature Uniformity required: <0.5C(20sec after reaching 95C)
15. PCR Volume Range minimum 10-80ul.
16. Instrument Memory-USB on Board is required.
17. Display Interface should be 8.4” color TFT LCD
18. Equipment Warranty of minimum 2 years from the date of installation.

4. Ph Meter

Technical specifications for Ph Meter

1. It Should have Range- 2.00 to 16.00
2. It should have Resolution- 0.1, 0.01
3. Relative accuracy ±0.01 is required.
4. It should have .pH calibration points up to 3mV

5. Minimum range mV ±1600.0 is needed.
6. Warranty of minimum 1 year (including parts) is required.

5. Water Bath

Technical Specification for Water Bath

Quantity: 2

1. Instrument should be digital.
2. Temperature Range +5 degree C to 100 degree C, (+/-) 2degree C
3. It should have Capacity of minimum 15ltr.-20 ltr.
4. Larger size is desirable.
5. Instrument may be Stainless steel body
6. Equipment warranty (including parts) of at least 1 year

7. Electrophoretic Tank With Power Pack

Technical Specification for Electrophoretic Tank With Power Pack

Quantity: 3

1. Inner tank should have minimum volume 38*30*5 cm
2. Instrument should be include Acrylic comb 10, 20 well (1No.)
3. Connecting cord- red and black (1each)
4. No. Of Platinum electrodes-red and black (1each)
5. Number of lid required one.
6. Power packs:

- 10-300V Variable
- 4-400mA variable
- 4 Parallel outputs
- Digital display

- Input Voltage 230V- 50Hz AC

7. Equipment warranty (including parts) of at least 1 year

8. **Ice Flaking Machine**

Technical Specification for Ice Flaking Machine

Quantity: 1

1. Ice flaking capacity should be 50kg-100kg in 24hr
2. Power 220V, 50/60Hz
3. Instrument having Low Noise and Vibration less Compressor.
4. It should have Start and stop automatically function, if electric goes off or no water or bin full through a sensor.
5. Instrument should be CFC and HCFC free refrigerant (echo-friendly).
6. Instrument Storage bin having minimum capacity of 15kg.
7. Instrument should have Stainless steel body.
8. Equipment warranty (including parts) of at least 1 year

9. **Water Purification System**

Technical Specifications for Water Purification System
Quantity: 1

1. Water purification system should be capable of producing type I (18.2 Mega ohm Resistivity and type III with Pretreatment cartridge, Reverse Osmosis, polishing cartridge and 0.22micron final filter.

2. The system should be capable of feed water acceptance up to 2000 micron siemens conductivity , Fouling Index (SDI) <12, Total cholrine <3ppm.

3. Prefiltration
   I. 1 Stage pretreatment system.
   II. 1 micron wrapped type depth filter.

4. Purification requirements as follows:
   I. Pre-treatment cartridge with anti scaling compound , activated carbon.

II. It must be Pump with unique temperature feedback mechanism
III. High flux thin film composite polyamide RO membrane with 94-99% rejection.
IV. Permeate divert valve which will divert low quality product water to the drain.
V. Coaxial resistivity cell with a flow through design and a cell constant may be of 0.01cm¯1.
VI. It should display both compensated and non-compensated temperature accurate within ±0.1°C.
VII. Type III Water flow rate @ 2.5 Liters/hr.

5. Storage: An inbuilt storage with 6.5 liters capacity is desirable .
6. Polishing requirements as follows:
   I. Two stage polishing cartridge with mixed bed ion exchange resin and activated carbon .
   II. Co axial resistivity cell to measure the resistivity of the final product water.
   III. Colourful graphical display to show the water parameters like resistivity, temperature and alarms.
   IV. The final product water should be dispensed through 13KDa ultrafiltration device for nucleus free water.
7. Instrument warranty (Including parts) should be Minimum 1 year.
8. The installation and commission of the units should be done on "no charge basis" by our "trained service engineers" at our facility.
9. Extended Warranty and one set of extra Catridge is preferred.
10. System should have dual 17W low press mercury vapour lamp made of quartz with dual wavelenght(125 and 254nm). The lamp should have an electro polished 316 LSS housing, ensure reduction of TOC as well as bacterial Destruction.

Product water specifications (Type III) Deionized water:
Ionic Rejection……... > 94%
Organic Rejection……. > 99%
Flow rate …….. 3 Liters /hr
Product Water specifications (Type I) Ultra pure Water :
Resistivity……... 18.2 Mega Ohms
TOC ……..…….< 5-10 ppb
Bacteria…….< 1 cfu /ml.
Particulate.....……..... < 1 /ml.
Endotoxin……< 0.001EU/ml
RNase……< 0.03ng/ml
DNase……< 4pg/µl
Flow rate …….. > 0.5 Liters / min.