AMENDMENT No.1

Date: 22/02/2013

Subject: Amendment to the tender Enquiry Document

Ref: Tender Enquiry No.: HLL/PCD/PMSSY/AIIMS/05/12-13 dated 05/02/2013

The pre-bid meeting for the referred tender enquiry was held on 14/02/2013. The following amendments are being incorporated in the referred tender enquiry document.

SECTION-I

NOTICE INVITING TENDERS (NIT)

Existing

Sl. No	Short Description of the Items	Department	Total Qty for 6 AIIMS	EMD Amount (Rs.)
14	Skeleton Articulated	Anatomy	60	12,00,000
15	Human Bones set disarticulated	Anatomy	180	10,80,000

Read As

Sl. No	Short Description of the Items	Department	Total Qty for 6 AIIMS	EMD Amount (Rs.)
14	*Human Skeleton Articulated (Real Bones)*	Anatomy	*6 sets*	*1,44,000*
15	*Complete human bones set dis articulated (Real Bones)*	Anatomy	180	*1,80,000*

SECTION - VI

LIST OF REQUIREMENTS

Part I

Existing

Sl. No	Name of the Item	Department	Qty/ AIIMS	Total Qty for 6 AIIMS	Warranty Required	CMC Required	Item identified as Consumable in nature
14	Skeleton Articulated	Anatomy	10	60	Yes	No	Yes
15	Human Bones set disarticulated	Anatomy	30	180	Yes	No	Yes

Read As

Sl. No	Name of the Item	Department	Qty/ AIIMS	Total Qty for 6 AIIMS	Warranty Required	CMC Required	Item identified as Consumable in nature
14	*Human Skeleton Articulated (Real Bones)*	Anatomy	*1 set*	*6 sets*	Yes	No	Yes
15	*Complete human bones set dis articulated (Real Bones)*	Anatomy	30	180	Yes	No	Yes

SECTION – VII

Technical Specifications

Item No: 01

Mortuary cooler / refrigerator with arrangement to keep 12 bodies

1. Existing Specification:

Para: 7. Special loading trolley.

Read as:

Para: 7. **Tray or Trolley should be available in the mortuary chamber so that the cadaver can be pushed inside or pulled outside the chamber smoothly.**

2. Existing Specification:

Para: 13. Double walled cooling units.

Read as:

Deleted.

3. Existing Specification:

Para: 18. CFC free compressors, conforming to latest international standards and guidelines. Twin compressors of which one is standby.

Read as:

CFC free compressors, conforming to latest international standards and guidelines.

Item No: 02

Embalming Machine

Existing Specification:

Para: 9. Motor - ½ HP or above.

Read as:

Deleted.

Item No: 04

Binocular Microscope (For students)

1. Existing Specification:

Para: 8. Revolving Quintuple nose piece (for objectives).

Read as:

Para: 8. Revolving **Quadruple** nose piece (for objectives).

2. Added Para:

Observation tube - should be Seidentopf type.

Item No: 07

Incubator

1. Existing Specification:

Para: A 1. Capacity: 120 L

Read as:

Para: A 1. Capacity: **100-150L**

2. Existing Specification:

Para: A. 10. Peltier heating with continuous air circulation and Heating by natural/forced convection for homogenous temperature distribution.

Read as:

Peltier **or Jacket or Blanket heating** with continuous air circulation and Heating by natural/forced convection for homogenous temperature distribution.

Item No: 10

Dissection Table –Standard

1. Existing Specification:

Para: 1.5 Large radii on all inside corners should be provided for easy cleaning.

Read as:

Deleted.

2. Existing Specification:

Para: 1.7 Airtight compartment should be mounted beneath the table top to serve as an odour-free storage of drapes.

Read as:

Para: 1.7 Airtight compartment should be mounted beneath the table top to serve as an odour-free storage of drapes. **Size: 2 ft (Length) x 1.5ft (Width) x 9" (Depth)**

3. Existing Specification:

Para: 1.8. It should have stainless steel full extension drawer and a removable stainless steel tray provided with a perforated plate and a removable lid.

Read as:

Para: 1.8 - It should have stainless steel full extension drawer and a removable stainless steel tray provided with a perforated plate and a removable lid. **Size: 2 ft (Length) x 1.5ft (Width) x 9" (Depth)**

Item No: 11

Dissection Table – Small

1. Existing Specification:

Para: 1.5 Large radii on all inside corners should be provided for easy cleaning.

Read as:

Deleted.

2. Existing Specification:

Para: Para: 1.7 Airtight compartment should be mounted beneath the table top to serve as an odour-free storage of drapes.

Read as:

Deleted.

3. Existing Specification:

Para: 1.8. It should have stainless steel full extension drawer and a removable stainless steel tray provided with a perforated plate and a removable lid

Read as:

Para: 1,8. It should have stainless steel full extension drawer and a removable stainless steel tray provided with a perforated plate and a removable lid. **Size: 2 ft (Length) x 1.5ft (Width) x 9" (Depth)**

Item No: 13

Water Purification System

1. Existing Specification:

Para: A. Ultra pure Water System: - Water quality required for Molecular biology, Tissue culture/HPLC applications. The system should contain pre filtration unit, Type 2 RO filtration equipment, Reservoir 30L and Type 1 filtration equipment.

Read as:

Para: A. Ultra pure Water System: - Water quality required for Molecular biology, Tissue culture/HPLC applications. The system should contain pre filtration unit, Type 2 RO filtration equipment, **Reservoir 50L** and Type 1 filtration equipment.

2. Existing Specification:

Para: B 1. A prefilter unit with 1 & 5 micron filter to remove particulate

Read as:

Para: B 1. A - Regenerable pretreatment unit for removing hardness, iron, manganese, organics and coarse particles.

3. Existing Specification:

Para: B. 5. Conductivity cell before and after RO stage

Read as:

Para: B. 5. Conductivity cell after RO membrane **to check health of RO membarne..**

4. Existing Specification:

Para C: 1. Flow rate: 2L/hr

Read as:
Para C: 1. Flow rate: **15-20L/hr**

5. Existing Specification:

Para: D. 1. Output/flow rate up to: 1 litre/min.

Read as:

Para: D. 1. Output/flow rate up to: **1.5 to 2 litre/min**.

6. Existing Specification:

Para: D.5. Particles : <1/ml @0.1um

Read as:

Para: D.5. Particles : <1/ml

Item No: 14

SKELETON ARTICULATED

The existing item name and specification is replaced by the following specification:

Item No: 14

HUMAN SKELETON ARTICULATED (REAL BONES)

1 Description of Function
1.1 Mounted skeleton, one with the various parts connected in such a way as to demonstrate normal relationships and allow motion between components as in the living body.
2 Technical Specifications
2.1 The articulated skeleton should be ideal for teaching the basics of human anatomy.
i. Adult Male & Female - 1 set each
ii. Old age Male & Female - 1 set each
iii. Adolescent Male & Female - 1 set each
iv. Child Male & Female - 1 set each
v. Paediatric Male & Female - 1 set each
2.2 It should be real skeleton of a life size human skeleton and should show all skeleton part in high details
2.3 The arms, legs and skull cap should be removable for study.
2.4 All of the joints, sutures, fissure, formina and processes should be portrayed with at most accuracy/ intact.
2.5 Should be supplied with 5 caster roller stand.
2.6. It should be neat and clean.
2.7 Origin of bone should be marked & painted in RED colour and insertions should be marked and painted in BLUE colour.

Item No: 15

HUMAN BONES SET DIS ARTICULATED

The existing item name and specification is replaced by the following specification:

Item No: 15

COMPLETE HUMAN BONES SET DIS ARTICULATED (REAL BONES)

1. Real skeleton of life size human bone and should show all skeleton part in high details
2. The disarticulated adult bone set should be ideal for teaching the basics of human anatomy
3. It should be neat and clean.

Item No: 18

Liquid Nitrogen Drum

1. Existing Specification:

Should have a capacity of 35 Litres

Read as:

Should have a capacity of **30-35 Litres.**

2. Existing Specification:

Evaporation Rate: 0.2 L/day.
Approx Neck Tube: 50 L/dia mm

Read as:

Evaporation Rate: 0.2 L/day.
OR
Approx Neck Tube: 50 mm dia

3. Existing Specification:

Height: 5810mm (approx)
Outside dia: 400mm (approx)
Weight Empty: 7 Kg (approx)
Weight Full: 27 Kg (approx)

Read as:

Deleted

4. Existing Specification:

Para: 13. Accessories, spares and consumables
Roller base
Withdrawal device
6‘ Transfer line
Dipper
Phase Separator

Read as:

Para: 13. Accessories, spares and consumables **as required for running the system**

Item No: 20

REFRIGERATOR - 330 L. (LABORATORY TYPE)

1. Existing Specification:

Para: 1 Laboratory refrigerator should have 330 ltr capacities.

Read as:

Para: 1 Laboratory refrigerator should have capacity of **300-380 Litres**.

1. Existing Specification:

Para: 2. Temperature range from 2 deg C to 10 deg C.

Read as:

Para: 2. Temperature range from **2 deg C to 8 deg C**.

2. Existing Specification:

Para: 3. It should have galvanized sheet steel construction, white powder coated and adjustable feet.

Read as:

Para: 3. It should have galvanized sheet steel construction, powder coated and adjustable feet.

3. Existing Specification:

Para: 6. Lockable door with plastic magnetic sealing surround

Read as:

Para: 6. Lockable door with **tight sealing surround to prevent cold loss.**

4. Existing Specification:

Para: 10. Hermetically enclosed, low noise, vibration proof compressor.

Read as:

Para: 10. Hermetically enclosed, low noise, vibration proof/**low vibration compressor**.

5. Existing Specification:

Para: 12. Epoxy coated outside finish and S/S interior.

Read as:

Para: 12. Epoxy coated outside finish and **GS interior**.

6. Existing Specification:

Para: 13. Low noise, automatic defrosting, Freon free.

Read as:

Para: 13. Low noise, automatic defrosting, **CFC free & HCFC free.**

7. Existing Specification:

Para: 15. Temperature indicators to be provided.

Read as:

Para: 15. **Digital temperature display** should be provided.

Item No: 22

Centrifuge Machine

Existing Specification:

Para: 3.6. Maintenance-free brushless drive motor with exact speed pre selection and display. Speed range 100 to 6000 rpm and above, accuracy 1 rpm.

Read as:

Para: 3.6. Maintenance free brushless drive motor with exact speed pre selection and display. Speed range **300** to 6000 rpm and above, **accuracy 20 to 30 rpm.**

Item No: 23

Laminar Airflow

1. Existing Specification:

Para: 3.1 Type of Flow: Vertical – Re-circulatory.

Read as:

Para: 3.1 Type of Flow: Vertical **or Horizontal**.

2. Existing Specification:

Para: 3.4. Material of construction: Main body and rear panel: Electro-galvanized steel or Mild Steel, oven baked epoxy powder coated finish. Side window (panels): UV stabilized transparent Perspex or polycarbonate. Work table (surface): SS304 or SS316.

Read as:

Para: 3.4. Material of construction: Main body and rear panel: Electro-galvanized steel or Mild Steel, oven baked epoxy powder coated finish. Side window (panels): UV stabilized transparent Perspex or polycarbonate **or dual metal side walls with negatively pressurised interstitial space**. Work table (surface): SS304 or SS316.

3. Existing Specification:

Para: 3.6. Blower Assembly: DIDW type blower system with high RPM motor, enclosed in an powder coated MS casing suitably suspended in a pair springs & connected to the filter chamber through flexible canvas duct.

Read as:

Para: 3.6. Blower Assembly: DIDW type blower **or dual brushless DC (BLDC) blower system** with high RPM motor, enclosed in a powder coated MS casing suitably suspended in a pair springs & connected to the filter chamber through flexible canvas duct **or metal blower plenum.**

Item No: 24

Deep Freezer (-20 deg C)

1. Existing Specification:

Para: 2.1 Vertical Freezer, single door with adjustable 6 to 8 shelves (frost free).

Read as:

Para: 2.1 Vertical Freezer, single door with adjustable 6 to 8 shelves **or drawers** (frost free).

2. Existing Specification:

Para: 2.2 Separate Chamber racks to be pulled out for easy handling.

Read as:

Para: 2.2 Separate Chamber racks **or drawers** to be pulled out for easy handling.

3. Existing Specification:

Para: 3.1 Capacity within 400 L.

Read as:

Para: 3.1 Capacity: **300L to 400 L**.

4. Existing Specification:

Para: 3.3 No condensation on storing material with automatic electric defrost.

Read as:

Para: 3.3 No condensation on storing material with automatic defrost.

5. Existing Specification:

Para: 3.5 Refrigeration System Heavy Duty refrigeration system, maintenance free, below -20 deg C (+ 10C) with hermetically sealed refrigeration compressor and reliable refrigeration to minimize noise and vibration, air cooled with security lock to prevent unintentional switch off shall be supplied. It should have maximum cooling time hours at maximum ambient temperature of 33deg C. The equipment should be of continuous duty and frost free.

Read as:

Para: 3.5 Refrigeration System Heavy Duty refrigeration system, **with low** maintenance, below -20 deg C (+ 10C) with hermetically sealed refrigeration compressor and reliable refrigeration to minimize noise and vibration, air cooled with **special design or arrangement to prevent unintentional switch off shall be supplied.** It should have maximum cooling time hours at maximum ambient temperature of 33deg C. The equipment should be of continuous duty and frost free.

Item No: 25

-80° DEEP FREEZER

1. Existing Specification:

Para: CAPACITY: 720 – 750 Litres.

Read as:

Para: CAPACITY: **650 – 750 Litres.**

2. Existing Specification:

Para: 2) Construction should be of New Ultra Thin Vacuum Insulation GEL Panel.

Read as:

Para: 2) Construction should be of thin vacuum insulation panel.

1. Existing Specification:

Para: 3) System should have 304L grade stainless steel interior and tough, powder coated exterior finish constructed on steel.

Read as:

Para: 3) System should have Stainless steel interior and tough, powder coated exterior finish.

2. Existing Specification:

Para: 4) Freezer should have 3 Compartment with two adjustable height stainless steel shelves.

Read as:

Para: 4) Freezer should have **3 or more** Compartment with **two or more** adjustable height stainless steel shelves.

3. Existing Specification:

Para: 8) Heavy duty lockable castors and lockable outer doors and lids.

Read as:

Para: 8) Heavy duty lockable castors and lockable outer doors.

4. Existing Specification:

Para: 9) Freezer must have battery back-up and 4 PIN security lock for unauthorized tampering.

Read as:

Para: 9) Freezer must have battery back - up and set point security **through password protection for preventing** unauthorized tampering.

5. Existing Specification:

Para: 11) Freezer must have three compartments with three inner doors for easy handling of samples.

Read as:

Para: 11) Freezer must have **three or more** compartments with inner doors for easy handling of samples.

6. Existing Specification:

Para: 14) Compressor should be capable to run any voltage between 190 – 270V. Freezer must have ISO 9001 standard quality test requirements and IEC 61010 Electrical safety CE & UL certified.

Read as:

Para: 14) **External or internal voltage stabilizer should be provided** so that Compressor should be capable to run any voltage between 190 – 270V. Manufacturing site for the freezer must have ISO 9001 standard quality test requirements and IEC 61010 electrical safety. The unit should be CE or UL certified.

7. Existing Specification:

Para: 15) Freezer must have capacity to hold 18 racks and 500 boxes of 2‖ height vials and one system should be supplied with 18 racks with boxes and dividers.

Read as:
Deleted.

Item No: 31

BLOOD GAS ANALYSR

1. Existing Specification:

Para 2. Essential Measured parameters; pH, pCO2, pO2, SaO2, tHb, Barometric Pressure, Na+, K+, Ca++, Cl-, Bl urea and Sr Creatanine & Blood sugar. All these parameters should be measured simultaneously.

Read as:

Para 2. Essential Measured parameters; pH, pCO2, pO2, SaO2, tHb, Barometric Pressure, Na+, K+, Ca++, Cl-, **Lactate**, **BUN** and & **Glucose**. All these parameters should be measured simultaneously.

2. Existing Specification:

Para 3. Calculated parameters should include BE, BE ecf, HCO3, Lactate, Anion Gap etc

Read as:

Para 3. Calculated parameters should include BE, BE ecf, HCO3, Anion Gap etc

Item No:34

HOT AIR OVEN

1. Existing Specification:

Para 3.1 External: Stainless Steel Casing :w x h x d: 850 x 600 x 700 mm (All dimensions will
have a tolerance of 5 mm).Insulated stainless steel door with locking and rear zinc-plated steel

Read as:

Para 3.1 External: Stainless Steel Casing :Insulated stainless steel door with locking and rear zinc-plated steel

2. Existing Specification:

Para 3.2 Interior - w x h x d: 40mm x 45mm x 30 mm, 55 liters approx (all dimensions will have a tolerance of 5 mm) easy-to-clean interior, made of stainless steel, with supports on the three sides for three adjustable perforated stainless steel shelves

Read as:

Para 3.2 Interior - Internal Volume atleast 55 liters easy-to-clean interior, made of stainless steel, with supports on the three sides for three adjustable perforated stainless steel shelves

Item No: 35

INCUBATOR

1. Existing Specification:

Para 3.1 Capacity: 120 L

Read as:

Para 3.1 Capacity: **100-150L**

2. **Existing Specification:**

Para 3.10 Peltier heating with continuous air circulation and Heating by natural/forced convection for homogenous temperature distribution

Read as:

Para 3.10 Peltier **or alternative** heating system with continuous air circulation and Heating by natural/forced convection for homogenous temperature distribution

Item No: 36

BIOSAFETY CABINET

1. Existing Specification:

Para 3. The cabinet noise level must be less than 60 decibel.

Read as:

Para 3. The cabinet noise level must be **less than 65** decibel.

Item No: 37

LIQUID NITROGEN DRUM

1. Existing Specification:

Para 4. Should have a capacity of 35 Litres

Read as:

Para 4. Should have a capacity of **30-35 Litres**.

2. Existing Specification:
Para 6 - Evaporation Rate should be 0.20
Para 7 - Approximate Neck tube diameter should be 50mm

Read as:

Para 6 - Evaporation Rate should be 0.20
OR
Para 7 - Approximate Neck tube diameter should be 50mm

3. Existing Specification:

8. Height of the drum: 5810mm
9. Outside diameter of the drum : 400mm
10. Weight Empty of the drum : 7.0 Kg or less
11. Weight Full of the drum : 27.0 Kg or less

Read as:

8. Deleted
9. Deleted
10. Deleted
11. Deleted

4. Existing Specification:

Para 13. Accessories, spares and consumables
Roller base
Withdrawal device
6‘ Transfer line
Dipper
Phase Separator

Read as:

Para 13. Accessories, spares and consumables **as required for running the system**

Item No: 39

ORBITAL SHAKER

1. Existing Specification:

Para 1.Should have an temperature Range: 4 - 80°C

Read as:

Para 1. Should have an temperature Range: **15°C below ambient** to 80°C

2. Existing Specification:

Para 6. Shaking speed: Should be between 50-500 rpm with a speed accuracy of +/- 1 rpm

Read as:

Para 6. Shaking speed: Should be between **50-400 rpm or more** with a speed accuracy of +/- 1 rpm

3. Existing Specification:

Para 9. It should be belt less and with magnetic drive based on permanent magnets

Read as:

Para 9. It should be belt driven **or Triple eccentric drive or with magnetic drive** based on permanent magnets

4. Existing Specification:

Para 15. Unit should be quoted with one full size Universal platform (capacity 20-25 flask of 250ml) to hold all sizes of clamps (up to 5 liters Flask).

Read as:

Para 15. Unit should be quoted with one full size Universal platform (capacity **15-25** flask of 250ml) to hold all sizes of clamps (up to 5 liters Flask).

5. Existing Specification:

Para 16. Accessories: At least 5 clamps each for 100ml, 250ml, 500ml and 1000ml flasks

Read as:

Para 16. Accessories: At least 5 clamps each for **100ml or** 125ml, 250ml, 500ml and 1000ml flasks

Item No: 41

REAL TIME PCR

1. Existing Specification:

Para 1. Thermal Cycling in Peltier-based system with block capable of supporting at least 5 different temperature profiles in the same run in zone format

Read as:

Para 1. Thermal Cycling in Peltier-based system **with gradient block**.

2. Existing Specification:

Para 3. Supported Volumes 10–80 µL

Read as:

Para 3 Supported Volumes **10–50 µL**

3. Existing Specification:

Para 5. Temperature Range 4°C-100°C, Temperature Accuracy at least +/-0.25°C and Temperature Uniformity at least +/-0.50°C

Read as:

Para 5. Temperature Range **37°C - 98°C**, Temperature Accuracy at least +/-0.25°C and Temperature
Uniformity at least +/-0.50°C

4. Existing Specification:

Para 8. Data Collection in all filters for all wells regardless of plate setup

Read as:

Para 8. Data Collection in all filters for all wells

Item No: 42

CHEMILUMINESCENCE & GEL IMAGING & ANALYSIS SYSTEM

1. Existing Specification:

Para 1. At least 5 megapixel or better, 16-bit Scientific-Grade CCD Camera for good resolution, cooled to ≤ -25deg C

Read as:

Para 1. - 5 megapixel **or less**, 16-bit Scientific-Grade CCD Camera for good resolution, cooled to ≤ -25deg C

2. Existing Specification:

Para 10. Should download images over network via any web browser using a PC or Mac or internet enabled phones

Read as:

Para 10. Should download images over network via any web browser using a PC or Mac or internet enabled phones **/ real time with download facility**

3. Existing Specification:

Para 11 - Must have Stand-alone Software for enhancement, editing, annotation, archiving & analysis including features like 1-D multilane densitometry, 2-D spot densitometry, MW, Rf analysis, Microtiter plate, Eli-spot, Array & Dot Blot Analysis, Colony, Cell & GFP Yeast Counting, Q-PCR, Zymogram gel analysis, Gel Scoring, Band matching, RFLP, RAPD, Fingerprinting, Dendrogram creation, options for Dice, Jacard, Pearson, Frequency, Similarity Coefficients & Cluster analysis with multiple methods including Neighbor joining, UPGMA, WPGMA, Simple linkage, complete linkage, ward, median, centroid etc., Multi-color fluorescence microscopy imaging & Movie Mode facility. Should include at least two stand-alone copies of the analysis software

Read as:

Para 11 - Must have Stand-alone Software for enhancement, editing, annotation, archiving & analysis including features like 1-D multilane densitometry, 2-D spot densitometry **(2D software should include a dedicated application related to protein profiling like Spot matching between the gels, intensity difference across the complete range of proteins available on the gels with the help of normal staining and multiplexing with diferent dyes in the same gel)** , MW, Rf analysis,Microtiter plate, Eli-spot, Array & Dot Blot Analysis, Colony, Cell & GFP Yeast Counting, Q-PCR, Zymogram gel analysis, Gel Scoring, Band matching, RFLP, RAPD, Fingerprinting, Dendrogram creation, options for Dice, Jacard, Pearson, Frequency, Similarity Coefficients & Cluster analysis with multiple methods including Neighbor joining, UPGMA, WPGMA, Simple linkage, complete linkage, ward, median, centroid etc., Multi-color fluorescence microscopy imaging & Movie Mode facility. Should include at least two stand-alone copies of the analysis software

Item No: 43

VERTICAL LAMINAR FLOW BENCH WITH HEPA FILTER

Existing Specification:

11. Door should be made of tempered safety glass sliding door

Read as:

11. Door should be made of tempered safety glass sliding door **or glass wind screen**

Item No: 45

ELECTROLYTE ANALYZER

Existing Specification:
Para 2 - The Analyser should be able to measure Na/K/Cl and Expandable to Ca and Li

Read as:
Para 2 - The Analyser should be able to measure **Na, K, Cl** and Expandable to Ca and Li

Item No: 46

HPLC SYSTEM WITH CHROMATOGRAPHIC WORKSTATION

1. Existing Specification:

Peak Operating Pressure: 42MPa(0.001-9.999mL/min)

Read as:

Peak Operating Pressure: **40MPa**(0.001-9.999mL/min)

2. Existing Specification:

Dimension: 450mm x 300mm x l60mm (length x width x height)

Read as:

Deleted

3. Existing Specification:

UV Detector: Wavelength Range: 190-680nm

Read as:

UV Detector: Wavelength Range: **190-600nm**

4. Existing Specification:

UV Detector: Baseline Noise: ±0.25×10^-5 AU(empty cell, response time: 1 second, 20∩)

Read as:

UV Detector: Baseline Noise: **±0.5**-1.0×10^-5

5. Existing Specification:

UV Detector: Baseline Drift: 0.4×10^-4 AU (empty cell, response time: 1 second, 20∩)

Read as:

UV Detector: Baseline Drift: 0.4×10^-4 AU

6. Existing Specification:

UV Detecttor: Minimum Detection: 1×10^-8 g/ML(Naphthalene/methyl alcohol solvent)

Read as:

UV Detecttor: Minimum Detection: 1×10^-8 g/ML(Naphthalene/methyl alcohol)

Specification Added:

1. Injection System: Auto Sampler
2. Suitable compatible PC, Laser Printer & UPS to be offered with the system.

Item No: 47

RANDOM ACCESS HIGH THROUGHPUT FULLY AUTOMATED CLINICAL CHEMISTRY ANALYSER

1. Existing Specification:

26. REAGENTS: Manufacturing Company should have their own system reagents, controls and calibrators and the price list for the same should be enclosed with the price bid

Read as:

26. REAGENTS: Manufacturing Company **if have** their own system reagents, controls and calibrators and the price list for the same should be enclosed with the price bid

Item No: 47

RANDOM ACCESS MEDIUM THROUGHPUT FULLY AUTOMATED CLINICAL CHEMISTRY ANALYSER (FLOOR MODEL)

1. Existing Specification:

10. STAT FACILITY: Facility for continuous loading of stat samples without interrupting the routine run. Minimum 20 STAT sample positions for very urgent samples

Read as:

10. STAT FACILITY: Facility for continuous loading of stat samples without interrupting the routine run. Minimum **10-20** STAT sample positions for very urgent samples

2. Existing Specification:

13. REAGENT DISK: Two Refrigerated reagent disks with 50 positions for R1 and 40 positions for R2.

Read as:

13. REAGENT DISK: Two Refrigerated reagent disks with **40** positions for R1 and 40 positions for R2.

3. Existing Specification:

14. ON-BOARD PARAMETERS TESTS: Minimum 50 photometric tests + 3 ISE (Na, K, Cl).

Read as:

14. ON-BOARD PARAMETERS TESTS: Minimum **40** photometric tests + 3 ISE (Na, K, Cl).

4. Existing Specification:

17. STIRRER: More than 2 on board variable speed stirrers should be available

Read as:

17. STIRRER: **2 or More** on board variable speed stirrers should be available

5. Existing Specification:

27. REAGENTS: Manufacturing Company should have their own system reagents, controls and calibrators and the price list for the same should be enclosed with the price bid

Read as:

27. REAGENTS: Manufacturing Company **if have** their own system reagents, controls and calibrators and the price list for the same should be enclosed with the price bid

6. Existing Specification:

29. FDA/ CE: The equipment to be supplied should have FDA / CE certification and should have minimum 5 installations in reputed Institutes/labs in India.

Read as:

29. FDA/ CE: The equipment to be supplied should have FDA / CE certification

Item No: 49

PC BASED ELISA READER WITH AUTOMATIC WASHER AND SHAKER (COMPLETE UNIT)

1. Existing Specification:

A.2. Wavelength range 200-1000 nm with increment of 1 nm

Read as:

A.2. Wavelength range **230-1000** nm with increment of 1 nm

2. Existing Specification:

A.6. Light Source- tungsten- Halogen/ Deuterium lamp.

Read as:

A.6. Light Source- tungsten- Halogen/ Deuterium/**Xenon lamp**.

Item No: 51

VERTICAL LAMINAR FLOW BENCH WITH HEPA FILTER

1. Existing Specification:

11. Door should be made of tempered safety glass sliding door

Read as:

11. Door should be made of tempered safety glass sliding door **or glass wind screen**

Item No: 52

UV VISIBLE DOUBLE BEAM SPECTROPHOTOMETER

1. Existing Specification:

6. Light source tungsten and halogen / deuterium lamp

Read as:

6. Light source tungsten and halogen / deuterium/ **Xenon lamp**

Item No: 53

ULTRA CENTRIFUGE

1. Existing Specification:

14. Fixed Angle Rotors of titanium with 8 places of 6.5 ml (100,000 rpm, 802,000xg) & of carbon Fibre with 6 places of 13.5 ml (65,000 rpm, 324,000xg) & of carbon Fibre with 24 places of 1.5 ml (50,000 rpm, 280,000xg)

Read as:

14. Fixed Angle Rotors of titanium/**carbon** with 8 places of 6.5 ml (100,000 rpm, 802,000xg) & of carbon Fibre/**titanium** with 6 places of 13.5 ml (65,000 rpm, 324,000xg) & of carbon Fibre /**titanium** with 24 places of 1.5ml (50,000 rpm, 280,000xg)

Item No: 54

REFRIGERATED CENTRIFUGE

1. Existing Specification:

2. Max speed: 30,000 rpm, Max RCF: 65,400 x g

Read as:

2. Max speed: Atleast 14,000 rpm

2. Existing Specification:

3. Max capacity: 6 x 85 ml

Read as:

Deleted

3. Existing Specification:

4. Temperature: -20 to +40ºC, CFC free refrigeration

Read as:

4. Temperature: **-10** to +40ºC, CFC free refrigeration

4. Existing Specification:

5. Single knob operation (no complicated keypads)

Read as:

5. Single knob operation **(simple keypads)**

5. Existing Specification:

8. Pre-selection of time upto 10 sec, 9hrs. 59 min or continues

Read as:

8. Pre-selection of from **1 min to 99min or continues**

6. Existing Specification:

9. 20 curves of acceleration and deceleration

Read as:

9. Acceleration and deceleration curves **– 9 each**

7. Existing Specification:

10.10 freely programmable Accel/Deaccl. curves with graphic display

Read as:

10. **Atleast 9** freely programmable Accel/Deaccl. curves with graphic display

8. Existing Specification:

11. Storing of at least 50 run protocols

Read as:

11. Storing of at least **5-10** run protocols

9. Existing Specification:

14. Display for end of rotor life

Read as:

Deleted

10. Existing Specification:

17. Facility for automatic lid opening after the run

Read as:

Deleted

11. Existing Specification:

19. Angle rotor 10 x 10 ml, incl. cover max 26,000 rpm; RCF:57,450 x g

Read as:

19. Angle rotor 10 x 10 ml

12. Existing Specification:

20. Angle rotor 24 x 2.2/1.5ml, max.26,000 rpm; RCF: 61,990 x g

Read as:

20. Angle rotor 24 x 2.2/1.5ml

13. Existing Specification:

21. Angle rotor 6 x 50ml. (Falcon) incl. cover max 14,000 rpm; RCF: 20,380 x g

Read as:

21. Angle rotor 6 x 50ml. (Falcon)

14. Existing Specification:

23. Swing out rotor 4 place without bucket, Max 5,000 rpm: RCF: 3,770 x g

Read as:

23. Swing out rotor 4 place without bucket

15. Existing Specification:

24. Should be FDA or CE or BIS approved product

Read as:

24. Should be US FDA or European CE approved product

Item No: 55

REFRIGERATED MICROCENTRIFUGE

1. Existing Specification:

1. High Speed Micro centrifuge with LCD Display Screen, Microprocessor controlled

Read as:

1. High Speed Micro centrifuge with LCD/**LED** Display Screen, Microprocessor controlled

2. Existing Specification:

2. Max speed: 14,000 rpm. Max RCF : approx 22,000 x g

Read as:

2. Max speed: **13,000- 14,000 rpm. Max RCF : approx 20,000- 22,000 x g**

3. Existing Specification:

5. Time selection: 10sec. - 11hrs 59 min or hold

Read as:

5. Time selection: **1 min to 59** min or hold

4. Existing Specification:

7. LCD Display for speed, RCF, Temp. & Time

Read as:

7. LCD/**LED** Display for speed, RCF, Temp. & Time

5. Existing Specification:

10. Selectable Automatic lid opening after the run

Read as:

Deleted

6. Existing Specification:

12. Up to 50 Programs storage memory

Read as:

Deleted

7. Existing Specification:

13. Simple to know operation, no keypads

Read as:

13. Simple knob operation, **or keypads operation**

8. Existing Specification:

14. Angle rotor Polypropylene 24 x 1.5 ml. incl.

Read as:

14. Angle rotor Polypropylene 24 x 1.5 ml. **or Dual row rotor with same capacity/Volume**

8. Existing Specification:

16. Max. rpm 14,000; Max. RCF. Approx 17,000 x g

Read as:

16. Max. rpm **13,000-14,000; Max. RCF. Approx 20,000-22,000 x g**

Item No: 56

Water Purifications System

1. Existing Specification:

Para: A. Ultra pure Water System: - Water quality required for Molecular biology, Tissue culture/HPLC applications. The system should contain pre filtration unit, Type 2 RO filtration equipment, Reservoir 30L and Type 1 filtration equipment.

Read as:

Para: A. Ultra pure Water System: - Water quality required for Molecular biology, Tissue culture/HPLC applications. The system should contain pre filtration unit, Type 2 RO filtration equipment, Reservoir **50L** and Type 1 filtration equipment.

2. Existing Specification:

Para: B 1. A prefilter unit with 1 & 5 micron filter to remove particulate

Read as:

Para: B 1. **Regenerable pretreatment unit for removing hardness, iron, manganese, organics and coarse particles.**

3. Existing Specification:

Para: B. 5. Conductivity cell before and after RO stage

Read as:

Para: B. 5. Conductivity cell after RO **membrane to check health of RO membrane**..

4. Existing Specification:

Para C: 1. Flow rate: 2L/hr

Read as:

Para C: 1. Flow rate: **15-20L/hr**

5. Existing Specification:

Para: D. 1. Output/flow rate up to: 1 litre/min.

Read as:

Para: D. 1. Output/flow rate up to: **1.5 to 2 litre**/min.

6. Existing Specification:

Para: D.5. Particles : <1/ml @0.1um

Read as:

Para: D.5. Particles : <1/ml

Item No: 58

SEMI AUTO ANALYZER

1. Existing Specification:

6. The system should have memory at least 500 patient samples.

Read as:

6. The system should have memory at least 500 patient **tests**

Specifications Added

1. **Should cover UV and complete visual spectrum**
2. **Should have internal (inbuilt) printer facility**

Item No: 59

VERTICAL LAMINAR AIRFLOW HOOD FOR CELL CULTURE

1. Existing Specification:

11. Door should be made of tempered safety glass sliding door

Read as:

11. Door should be made of tempered safety glass sliding door **or glass wind screen**

Item No: 62

NANO SPECTRO BIO PHOTOMETER

1. Existing Specification:

2. Operational Requirements:

System should combine micro-volume Pedestal technology and cuvette capability in a single instrument.

Read as:

2. Operational Requirements:
System should combine micro-volume and cuvette capability in a single instrument.

2. Existing Specification:

Under Para: 3a.
xv. Footprint – 14 x 20 cm.
xvi. Weight – 2.0 – 3.0 Kg.
xix. Operating power consumption – 12 – 18 W (max 30 W)
xx. Standby power consumption – 5 W

Under Para: 3b.
ix. Weight: 2.1 kg

Read as:

Deleted

3. Existing Specification:

Under Para: 3a.
xvii. Sample pedestal material of Construction – 303 stainless steel and quartz fibre

Read as:

Under Para: 3a.
xvii. Sample material of Construction –stainless steel and quartz fibre.

Item No: 63

Florescence Microscope

1. Existing Specification:

4.Illumination: Pre centred Mercury fibre Illuminator of 130W with facility for no heat Lifetime of 2000 hrs or more

Read as:

4.Illumination: Pre centred Mercury fibre Illuminator of 130W/**Metal halide Illuminator of 120/130W** with facility for no heat Lifetime of 2000 hrs or more

2. Existing Specification:

8. Epi-Fluorescence Attachment: Noise terminator mechanism incorporated for high signal ratio images with pre centred mercury fibre illuminator of 130w. Main body must hold 2 fluorescence filter block and one empty position for bright field Epi-fluor filter block (Blue) consisting of excitation filter , Dichroic mirror and barrier filter Epi-fluor filter block (Green) consisting of excitation filter, Dichroic mirror and barrier filter, Epi-fluor filter block for UV Consisting of excitation filter Dichroic mirror and barrier filter.

Read as:

8. Epi-Fluorescence Attachment: Noise terminator mechanism incorporated for high signal ratio images with pre centred mercury fibre illuminator of 130w. Main body must hold **4-6** fluorescence filter block and one empty position for bright field. Epi-fluor filter block (Blue) consisting of excitation filter , Dichroic mirror and barrier filter Epi-fluor filter block (Green) consisting of excitation filter, Dichroic mirror and barrier filter, Epi-fluor filter block for UV Consisting of excitation filter Dichroic mirror and barrier filter.

3. Existing Specification:
10. Software: Built-in image analysis software that include length, width and circle measurements, comparisons of images, in the LCD screen

Read as:
10. Software: Image analysis software that include length, width and circle measurements, comparison of images **on PC if not inbuilt supplier has to supply the suitable PC, Printer & UPS**

Item No: 64

Inverted Microscope with PC

1. Existing Specification:

J. Software should be with following features:
Acquisition and device control through four –dimensional acquisition, Image Acquisition, Time Lapse imaging, Z-stack, Multi-channel Fluorescence, Annotation, 2D/3D View, ND viewer, Filter, Morphology, Large Image, Macro, Segmentation, Auto-measurement, Report Generator facility, Data Base, Vector layer and Multi-Dimensional File Format (ND Format), Microscope Camera and Software should be from one source.

Read as:

J. Software should be with following features:
Acquisition and device control through four –dimensional acquisition, Image Acquisition, Time Lapse imaging, Multi-channel Fluorescence, Annotation, 2D/3D View, Filter, Morphology, Large Image, Macro, Segmentation, Report Generator facility, Data Base and Multi-Dimensional File Format (ND Format), Microscope Camera and Software should be from one source.

Item No: 65

CO2 Incubator

1. Existing Specification:

1. Inner total volume 180 to 190 liters

Read as:

1. Inner total volume **170 to 190 liters**

2. Existing Specification:

2. Temperature range: +50 deg C above ambient to +55 deg C

Read as:

2. Temperature range: **+4^{o}C above ambient** to +50^{o}C

3. Existing Specification:

5. Thermal conductivity sensor with two year warranty

Read as:

5. Thermal conductivity sensor **or Infrared sensor** with two year warranty

4. Existing Specification:

6. On demand sterilization at 140degC with 12

Read as:

6. On demand sterilization at 140^{o}C **up to** 12 hours

5. Existing Specification:

4. Built in HEPA filter Airflow System (100% HEPA filtered air within 1 minute) with internal blower but without FAN inside.

Read as:

4. Built in HEPA filter Airflow System (100% HEPA filtered air within 1 minute) with internal blower **with or without FAN inside**.

Item No: 66

ICE FLAKING MACHINE

Existing Specification:

23. Machine should have CE, VDE and GS approved and ISO9001 certified

Read as:

23. Machine should have **ISO/CE/FDA** certification

Item No: 68

LAB REFRIGERATORS

1. Existing Specification:

Para: Preferably roller mounted.

Read as:

Para: Preferably **roller or caster** mounted.

2. Existing Specification:
Para: Battery backup.

Read as:
Para: Battery backup **for display and alarms**.

3. Existing Specification:

Para: Durable unbreakable interior.

Read as:

Para: Durable interior.

4. Existing Specification:

Para: Interior lighting, Drip tray and defrosting arrangement.

Read as:

Para: Interior lighting, **auto or manual** defrosting arrangement.

5. Existing Specification:

Para: Adequate circulation of air to ensure even cooling by DUCT system.

Read as:

Para: Adequate circulation of air to ensure even cooling.

6. Existing Specification:

Para: Door with lock. Inside of door provided with racks. Door hinges and latches should be chromium plated.

Read as:

Para: Door with lock.

7. Existing Specification:

All consumables required for installation and standardization of system to be given free of cost.

Read as:

Deleted.

8. Existing Specification:

Para: There should be provision for demonstration before final approval of equipment.

Read as:

Demonstration: As per General Tender Terms & Conditions.

Item No: 71

Flow Cytometer

1. Existing Specification:

6. Data management system: i5 3rd generation processor with licensed Windows operating system, 500GB hard disk, 4GB ram, 15" colour monitor, CD ROM/DVD Drive and colour DeskJet printer

Read as:

6. Data management system: i5 3rd generation processor with licensed Windows operating system **or equivalent ,better or advanced**, 500GB hard disk, 4GB ram, 15" colour monitor, CD ROM/DVD Drive and colour DeskJet printer

2. Existing Specification:

7. The system should be capable of doing cytometric bead array and should be compatible with cyto metric bead array software

Read as:

7. The system should be capable of doing cytometric array and should be compatible with cyto metric software

Item No: 74

Random Access Small Throughput Fully Automated Chemistry Analyzer

1. **Existing Specification:**

10. SAMPLE VOLUME: 1 to 30 micro litres in 1.0 micro litre increment

Read as:

10. SAMPLE VOLUME: **2 to 30** micro litres in 1.0 micro litre increment

2. Existing Specification:

16. STIRRER: More than 2 on board variable speed stirrers should be available

Read as:

16. STIRRER: **2 or more** on board variable speed stirrers should be available

3. **Existing Specification:**

19. PHOTOMETER: Wavelength ranging from 300 - 800 nm

Read as:

19. PHOTOMETER: Wavelength ranging from **340 - 750** nm

4. Existing Specification:

23. SOFTWARE: Window XP

Read as:

23. SOFTWARE: Window based software **or Compatible.**

5. **Existing Specification:**

26. REAGENTS: Manufacturing Company should have their own system reagents, controls and calibrators and the price list for the same should be enclosed with the price bid

Read as:

26. REAGENTS: Manufacturing Company **if have** their own system reagents, controls and calibrators and the price list for the same should be enclosed with the price bid

6. **Existing Specification:**

28. The equipment to be supplied should have FDA and CE certification and should have minimum 5 installations in reputed Institutes/labs in India.

Read as:

28. The equipment to be supplied should have FDA and CE certification

Item No: 75

Deep freezer -20^{o}C

1. Existing Specification:

B. Main Features:
5. Polyurethane Insulation around 150mm for better thermal insulation and sample safety in case or power failure

Read as:

B. Main Features:
5. Polyurethane Insulation **minimum of 70mm** for better thermal insulation and sample safety in case or power failure

2. Existing Specification:

C. Refrigeration:
2. Cascade cooling system with two hermetic compressors

Read as:

C. Refrigeration:
2. Cooling system with hermetic compressor

3. Existing Specification:

B.1. Internal Casing:
Stainless steel with 4 lockable castors

Read as:

B.1. Internal Casing:
Stainless steel **or steel** with 4 lockable castors

4. Existing Specification:

B. 3. Five compartments, each with separate inner doors for better sample protection through minimum sample warming

Read as:

B. 3. Five **Drawers or** compartments each with separate inner doors for better sample protection through minimum sample warming

5. Existing Specification:

D. 2. Temperature deviation of maximum +/-3 K

Read as:

D. 2. Temperature deviation of maximum +/-**3^{o}C**

Item No: 76

Deep freezer -70°C

1. Existing Specification:

2. Capacity more than 350 litres (less than 400 litres)

Read as:

2. **Internal** capacity more than 350 litres (less than 400 litres)

2. Existing Specification:

6. Temperature stability for each shelf should be +/- 0.5°C of the set temperature

Read as:

6. Temperature stability for each shelf should be **+/- 1.0°C** of the set temperature

3. Existing Specification:

7/8. Temperature homogeneity between the top shelf and bottom shelf should be +/- 3°C of the set temperature

Read as:

7. Temperature homogeneity between the top shelf and bottom shelf should be **+/- 6°C** of the set temperature

4. Existing Specification:

10. Average power consumption should be less than 700W

Read as:

Deleted

5. Existing Specification:

13. While the freezer is functioning, audible noise levels produced by it should not be more than 55 db

Read as:

13. While the freezer is functioning, audible noise levels produced by it should not be more than **70** db

Item No: 78

ELISA Reader

1. Existing Specification:

4. Absorbance range – 0 to 4.0 OD

Read as:

4. Absorbance range – 0 to **3.5** OD

2. Existing Specification:

8. Single LED lamp

Read as:

8. Halogen lamp

3. Existing Specification:

10. Up gradation option for fully automated Elisa processor

Read as:

Deleted

4. Existing Specification:

13. Display: operation through PC

Read as:

13. Display: Inbuilt screen for display or display through PC if through PC than suitable PC to be supplied

Item No: 79

Micro plate multimode reader

1. Existing Specification:

A-5. Temperature Control -2degC temperature to 50^{o}C.

Read as:

A-5. Temperature Control -2^{o}C temperature to **42^{o}C.**

2. Existing Specification:

A-6. Should have built in PC, Touch Screen navigation and operation.

Read as:

A-6. Should have built in Touch Screen or **through external PC navigation and operation if through PC than suitable PC to be supplied.**

3. Existing Specification:

D- 1. Light Source: Wavelength –matched LED

Read as:

D- 1. Light Source: Wavelength –matched LED/ **Xenon light source**

4. Existing Specification:

E- 3. Spectral Range 200 – 1100 nm

Read as:

E- 3. Spectral Range **230 – 1000 nm**

Item No: 90

Binocular Microscope (For students)

1. Existing Specification:

Para: 9. Plan achromat objectives 4X, 10X, 40X, 100X (Oil)

Read as:

Para: 9. Plan achromat objectives 4X, 10X, **20X**, 40X, 100X (Oil)

Item No: 91

Binocular Microscope (For Teachers)

1. Existing Specification:

Para: Camera: Camera specification – 2/3‖ CCD 1.45 MP, 12bit, USB interface.

Read as:

Para: Camera: Camera specification – 2/3‖ CCD, **5 MP or Better**, 12bit, USB interface.

Item No: 99

Analytical Balance 200 gm

1. Existing Specification:

Para: 3.4 Weighing capacity up to 120g

Read as:

Para: 3.4 Weighing capacity up to **200g**

2. Existing Specification:

Para: 3.6 Repeatability 0.09mg

Read as:

Para: 3.6 Repeatability **1mg or less**

3. Existing Specification:

Para: 3.10 Balance should have: QM tool box, including user administration and password protection.

Read as:

Para: 3.10 Balance should have: Facility for user administration and password protection.

Item No: 100

Centrifuge clinical

1. Existing Specification:

Para: Should accommodate Max. Volume of 90 ml (6 x 15ml).

Read as:

Should accommodate Max. Volume of **180 ml (12 x 15ml).**

2. Existing Specification:

Para: Should have an maximum speed of 4,000 rpm

Read as:

Para: Should have an maximum speed of **5,000 rpm**

3. Existing Specification:

Para: Should have an Max. RCF 1,900 x g

Read as:

Para: Should have an Max. RCF **3,000 x g**

4. Existing Specification:

Para: Should have an LCD display for displaying the parameters

Read as:

Para: Should have an LCD **or LED** display for displaying the parameters

5. Existing Specification:

Para: Rotor radius 10cm

Read as:

Para: Rotor **swing angle**

6. Existing Specification:

Para: Maximum Admiss. Density 1.2 kg/dm3

Read as:

Deleted

Item No: 101

WATER PURIFICATION SYSTEM

1. Existing Specification:

Para1. The tap water should pass through a pre-filtration unit comprising of 5 & 1 micron filter. The system should be suitable to draw water directly from the tap for purification. There should be no need for any additional booster pump.

Read as:

Para: 1. The tap water should pass through a pre-filtration unit comprising of 5 & 1 micron filter. The system should be suitable to draw water directly from the tap for purification.

2. Existing Specification:

Para: 2. The water purification system will deliver pure (Type II) & ultrapure water (type I) directly from tap water to eliminate the need of two different systems in the same laboratory.

Read as:

Deleted

3. Existing Specification:

Para: 5. The built-in TOC monitor (range lppb-999ppb) should be present.

Read as:

Para: **Deleted**

4. Existing Specification:

Para: Accessory 1. The accessory should provide ultrapure water with extremely low levels of elemental contamination (ppt or sub-ppt level) from ultrapure feed water system,

Read as:

Para: **Deleted**

Item No: 102

CO2 incubator

1. Existing Specification:

Para: Steam jacket with internal capacity 120 L (Approx) or as per user demand

Read as:

Para: Steam jacket**/Direct Heat/Water Jacketed** with internal capacity **120 L to 200 L** .

2. Existing Specification:

Para: Stable temperature control, excellent uniformity, and rapid recovery with no overshoot. Fanless convection circulation to provide chamber homogeneity, eliminate vibration & reduce sample evaporation.

Read as:

Para: Stable temperature control, excellent uniformity, and rapid recovery with no overshoot. Convection circulation to provide chamber homogeneity, eliminate vibration & reduce sample evaporation.

3. Existing Specification:

Timer: 1 min. to 100 hours

Read as:

Para: **Deleted**

4. Existing Specification:

Para: Temperature range: +5° C to +80°C

Read as:

Para: Temperature range: **+5° C above ambient** to +80°C

5. Existing Specification:

Para: 72-Hour Data Storage for CO2 concentration, temperature alarms and door openings should be automatically recorded for on-screen display.

Read as:

Para: 72-Hour Data Storage **or External data logger** for continuous data monitoring for CO2 concentration, temperature alarms and door openings should be automatically recorded for on-screen display.

Item No: 103

FULLY AUTOMATED CLINICAL CHEMISTRY – LOW THROUGH PUT

1. **Existing Specification:**

10. SAMPLE VOLUME: 1 to 30 micro litres in 1.0 micro litre increment

Read as:

10. SAMPLE VOLUME: **2 to 30** micro litres in 1.0 micro litre increment

2. Existing Specification:

16. STIRRER: More than 2 on board variable speed stirrers should be available

Read as:

16. STIRRER: **2 or more** on board variable speed stirrers should be available

3. **Existing Specification:**

19. PHOTOMETER: Wavelength ranging from 300 - 800 nm

Read as:

19. PHOTOMETER: Wavelength ranging from **340 - 750** nm

4. Existing Specification:

23. SOFTWARE: Window XP

Read as:

23. SOFTWARE: Window based software **or Compatible.**

5. **Existing Specification:**

26. REAGENTS: Manufacturing Company should have their own system reagents, controls and calibrators and the price list for the same should be enclosed with the price bid

Read as:

26. REAGENTS: Manufacturing Company **if have** their own system reagents, controls and calibrators and the price list for the same should be enclosed with the price bid

6. **Existing Specification:**

28. The equipment to be supplied should have FDA and CE certification and should have minimum 5 installations in reputed Institutes/labs in India.

Read as:

28. The equipment to be supplied should have FDA and CE certification

Item No: 105

Incubator, Electric

1. Existing Specification:

Para: Technical specification: Temperature range: +5 to 80 deg and variable shaking speed.

Read as:

Para: Technical Specification: Temperature range: **+5 deg. C above ambient** to 80 deg C and variable shaking speed.

Item No: 106

Biological safety cabinet

1. Existing Specification:

Para: **Technical specification HEPA** filters with 99.999% efficiency for particles 0.3mm (H14 class according to ENI 822)

Read as:

Para: **Technical specification** HEPA filters with **99.995%** efficiency for particles 0.3mm (H14 class according to ENI 822)

2. Existing Specification:

Para: **Technical specification** Automatic speed compensation system against clogged main HEPA filter pre-filtration unit with retention of 10 to 15 micrometer

Read as:

Deleted

3. Existing Specification:

Para**: Technical specification** Noise level <58dBA elapsed hour counter

Read as:

Para**: Technical specification** Noise level **<63dBA** elapsed hour counter

4. Existing Specification:

Para**: Technical specification** on /off switch with key lock

Read as:

Para**: Technical specification** on /off switch

Item No: 108

Existing Item Name: Ultrasound machine - B/W with 3 Probes

Read as Item Name: Ultrasound machine

Item No: 111

TRINOCULAR MICROSCOPE WITH CAMERA FOR TEACHING

Existing Specification:

Para: Camera - Camera specification – 2/3‖ CCD 1.45 MP, 12bit, USB interface.

Read as:

Para: Camera - Camera specification – 2/3‖ CCD **5 MP or better**, 12bit, USB interface.

Item No: 112

Perimeters, with charts (Priestly Smith model)

Existing Specification:

The product should be CE or FDA or BIS Certified.

Read as:

Deleted.

Item No: 118

LAB REFRIGERATORS

1. Existing Specification:

Para: Preferably roller mounted.

Read as:

Para: Preferably **roller or caster** mounted.

2. Existing Specification:
Para: Battery backup.

Read as:
Para: Battery backup **for display and alarms**.

3. Existing Specification:

Para: Durable unbreakable interior.

Read as:

Para: Durable interior.

4. Existing Specification:

Para: Interior lighting, Drip tray and defrosting arrangement.

Read as:

Para: Interior lighting, **auto or manual** defrosting arrangement.

5. Existing Specification:

Para: Adequate circulation of air to ensure even cooling by DUCT system.

Read as:

Para: Adequate circulation of air to ensure even cooling.

7. Existing Specification:

Para: Door with lock. Inside of door provided with racks. Door hinges and latches should be chromium plated.

Read as:

Para: Door with lock.

7. Existing Specification:

All consumables required for installation and standardization of system to be given free of cost.

Read as:

Deleted.

8. Existing Specification:

Para: There should be provision for demonstration before final approval of equipment.

Read as:

Demonstration: As per General Tender Terms & Conditions.

Item No: 119

Refrigerated centrifuge

1. Existing Specification:

2. Max speed: 30,000 rpm, Max RCF: 65,400 x g

Read as:

2. Max speed: At least 14,000 rpm

2. Existing Specification:

3. Max capacity: 6 x 85 ml

Read as:

Deleted

3. Existing Specification:

4. Temperature: -20 to +40ºC, CFC free refrigeration

Read as:

4. Temperature: **-10** to +40ºC, CFC free refrigeration

4. Existing Specification:

5. Single knob operation (no complicated keypads)

Read as:

5. Single knob operation **(simple keypads)**

5. Existing Specification:

8. Pre-selection of time upto 10 sec, 9hrs. 59 min or continues

Read as:

8. Pre-selection of from **1 min to 99min or continues**

6. Existing Specification:

9. 20 curves of acceleration and deceleration

Read as:

9. Acceleration and deceleration curves **– 9 each**

7. Existing Specification:

10.10 freely programmable Accel/Deaccl. curves with graphic display

Read as:

10. **Atleast 9** freely programmable Accel/Deaccl. curves with graphic display

8. Existing Specification:

11. Storing of at least 50 run protocols

Read as:

11. Storing of at least **5-10** run protocols

9. Existing Specification:

14. Display for end of rotor life

Read as:

Deleted

10. Existing Specification:

17. Facility for automatic lid opening after the run

Read as:

Deleted

11. Existing Specification:

19. Angle rotor 10 x 10 ml, incl. cover max 26,000 rpm; RCF:57,450 x g

Read as:

19. Angle rotor 10 x 10 ml

12. Existing Specification:

20. Angle rotor 24 x 2.2/1.5ml, max.26,000 rpm; RCF: 61,990 x g

Read as:

20. Angle rotor 24 x 2.2/1.5ml

13. Existing Specification:

21. Angle rotor 6 x 50ml. (Falcon) incl. cover max 14,000 rpm; RCF: 20,380 x g

Read as:

21. Angle rotor 6 x 50ml. (Falcon)

14. Existing Specification:

23. Swing out rotor 4 place without bucket, Max 5,000 rpm: RCF: 3,770 x g

Read as:

23. Swing out rotor 4 place without bucket

15. Existing Specification:

24. Should be FDA or CE or BIS approved product

Read as:

24. Should be US FDA or European CE approved product

Item No: 120

Electronic muscle stimulator

Existing Specification:

Para: The product should be CE or FDA or BIS Certified.

Read as:

Deleted.

Item No: 121

Stimulator, Isolator & Recorder system

Existing Specification:

Para: 3) The average should be a separate unit and should –
Be compatible with and have input/outputs ports for stimulator and oscilloscope.

Read as:

Para: 3) The average should be a separate unit and should –
Be compatible with and have input/outputs ports for stimulator and **recorder**.

Item No: 123

Water Purification System

1. Existing Specification:

Para: A. Ultra pure Water System: - Water quality required for Molecular biology, Tissue culture/HPLC applications. The system should contain pre filtration unit, Type 2 RO filtration equipment, Reservoir 30L and Type 1 filtration equipment.

Read as:

Para: A. Ultra pure Water System: - Water quality required for Molecular biology, Tissue culture/HPLC applications. The system should contain pre filtration unit, Type 2 RO filtration equipment, Reservoir **50L** and Type 1 filtration equipment.

2. Existing Specification:

Para: B 1. A prefilter unit with 1 & 5 micron filter to remove particulate

Read as:

Para: B 1. **Regenerable pretreatment unit for removing hardness, iron, manganese, organics and coarse particles.**

3. Existing Specification:

Para: B. 5. Conductivity cell before and after RO stage

Read as:

Para: B. 5. Conductivity cell after RO **membrane to check health of RO membrane**..

4. Existing Specification:

Para C: 1. Flow rate: 2L/hr

Read as:

Para C: 1. Flow rate: **15-20L/hr**

5. Existing Specification:

Para: D. 1. Output/flow rate up to: 1 litre/min.

Read as:

Para: D. 1. Output/flow rate up to: **1.5 to 2 litre**/min.

6. Existing Specification:

Para: D.5. Particles : <1/ml @0.1um

Read as:

Para: D.5. Particles : <1/ml

Item No: 124

LANGENDROF'S APPARATUS

1. Existing Specification:

Para: The Langendorff system is designed as a perfusion system for isolated, small mammalian hearts. Some special features of the system include the stainless steel sink, the small reeling pump and specially designed two-way Teflon taps.

Read as:

Para: The Langendorff system is designed as a perfusion system for isolated, small mammalian hearts and specially designed two-way Teflon taps.

2. Existing Specification:

Para: Retrograde perfusion of isolated hearts from mouse, rat, guinea pig, hamster and rabbit.

Read as:

Para: Retrograde perfusion of isolated hearts from mouse, rat, guinea pig.

3. Existing Specification:

Para: Table with base plate, shelf, sink.

Read as:

Deleted.

4. Existing Specification:

Para: System should Included:
Latex pressure balloons for left ventricular pressure (LVP) catheter.

Read as:

Para: System should Include:
Latex pressure balloons for left ventricular pressure (LVP) catheter- **1 packet (10 pieces) for each species (mouse, rat, guinea pig etc)**

5. Existing Specification:

Para: System should Included:
2-channel peristaltic pumps (2)

Read as:

Para: System should Include:
Peristaltic pumps (2)

6. Para added with the existing specification:

Recording system with software control variable speed.

Item No: 125

PHYSIOGRAPH SINGLE CHANNEL WITH STANDARD ACCESSORIES

1. Existing Specification:
Para: Accessories, spares and consumables:
III Pin junction box, action potential electrode
V-pin junction box

Read as:

Deleted.

2. Existing Specification:

Para: The product should be CE or FDA or BIS Certified.

Read as:

Deleted.

Item No: 126

ECG machine 12 channel

1. Existing Specification:

Para: 12. Heart rate measurement and pace-maker protection circuit.

Read as:

Para: 12. Heart rate measurement and pace-maker **detection** circuit.

2. Existing Specification:

Para: 13. Multiprinting formats: manual & automatic, standard 12 channel, 3 channel plus 3 rhythm lead, 6 channel, 6 channel plus rhythm lead, 60s analysis of arrhythmia, R-R histogram, trend graph.

Read as:

13. Multiprinting formats: manual & automatic, standard 12 channel, 3 channel plus 3 rhythm lead, 6 channel, 6 channel plus rhythm lead, 60s analysis of arrhythmia, trend graph.

Item No: 129

KYMOGRAPH

Existing Specification:

The product should be CE or FDA or BIS Certified.

Read as:

Deleted.

SECTION – XXI

Consignee List

Existing

The consignee will ensure timely issue of NMIC, CDEC, Octroi Exemption Certificates, Road Permits & Entry Tax Exemption Certificates, wherever applicable, to the suppliers.

Read As

The consignee will ensure timely issue of Octroi Exemption Certificates, Road Permits & Entry Tax Exemption Certificates, wherever applicable, against the request of suppliers.

All other contents of the Tender Enquiry Document including terms and conditions of the tender enquiry remain unchanged.

Important note:

All the prospective bidders are requested to provide their Bank Account Details to facilitate returning of their submitted EMD (in case submitted by way of DD or Banker's Cheque) through RTGS.