

Specification of equipments for the project “Establishment of Institute level biotech hub” (DBT) and “Seasonal Variation of temperature and other water quality parameters on fish diseases” (NICRA)

Name of equipment/instrument	Detailed specification	Qty.	Rate per unit	Amount (Rs.)
<p>PCR System with Pre & Post PCR Accessories</p>	<p>Main thermo block should accommodate 25 x 0.2 ml, 16 x 0.5 ml and One 5 x 5 micro titer plate, Easy programming, Adjustable heated lid for different tubes, Programmable temperature control speed: approx. 3 °C/s (heating) approx. 2 °C/s (cooling) Personal card for easy transfer of data between different cyclers, Ability to store methods on external card for safety and multiple user capability, Licensed and authorized system for PCR applications, Two years warranty, In future system can be upgraded as computer controlled system., The same software should be capable of networking up to 16 Systems in the future</p> <p><u>Accessories for PCR</u></p> <p>Centrifuge, incl. standard rotor 1.5/2 ml & Adaptor for 0.2 & 0.5ml, RCF : 13,400 x g, 4 Single Channel Pipette – Volume 0.1 µl-2.5 µl, 2 - 20µl & 20 - 200µl and 100 µl -1000 µl, TIPS Standard 2-200µl (2 bags of 500 tips) 0.2 ml PCR tubes, colorless, 1,000 pcs, 0.5 ml PCR tubes, colorless, 500 pcs. Micro test tube 3810X, 1.5 ml, colorless, 1000 pcs, Isotherm-System Starter Set for 1.5/2.0ml tubes, PCR-Cooler 0.2 ml, Electrophoresis Unit with power pack, UV Trans illuminator 15.312 nm UV table, 12 Mega pixel Digital Camera UPS: Minimum 1 hrs back up</p>	<p>1 (one) set with accessories</p>		
<p>Laminar Flow</p>	<p>Work Space: 6’X2.5’X2.5’, Electro galvanized sheet bulkhead with powder coated finish, SS table top, Steripot holding arrangement, Bunsen burner fitting arrangement, Glass paneling/door, after opening the door should rest beneath the roof, prefilter-dry fabric minipleat, Hepafilter-Gradvel, minipleat separator type, penetration below 0.015% for particles</p>	<p>1 (one)</p>		

	0.3μ or larger, custom produced motor assembly with vertical flow system, fluorescent lighting system, UV germicidal lamp, Air/Gas Petcock, Manometer			
BOD Incubator	Overall dimension : 600mm x 750mm x 800 mm, Inner chamber dimension : 500mm x 500mm x 400 mm, Capacity : 100 Lit, Temperature range: 5°C to 60 °C, Temperature Accuracy : ±0.5 °C in 5°C to 24°C / ±0.3 °C in 25°C to 36°C / ±0.1 °C in 37°C to 60°C, No. of Shelves: 5 nos.	1 (one)		
Water bath	Capacity: 10Ltrs, Temperature Range: Above Ambient to 99.9°C. (Ambient at 25°C), Temperature controller: Digital, Temperature Sensitivity: +/- 0.5°C. Temperature sensor : PID, Body : Inner body SS and outer body MS with powder Coated, Water Circulation : Inside the tank, Tank Dimension : 28 x 25 x 15 cms, Instrument Dimension : 38 x 20 x 18 cms Weight : 12 kgs, Input Voltage : 230V,50 Hz,15 amps(max).A.C. Supply.	1 (one)		
-20⁰ freezer	344 liter or more storage capacity solid door static freezer. Analog thermometer. Fast freeze switch. Mains warning lamp. Castor at the back and adjustable feet in front. Dimension (Height-72.8 inch, Width-23 inch, Depth-23 inch).Combination of pull out drawer. CFC/HCFC free. Puff with cyclo-pentane insulation. Temperature Range:-17°C to -24°C, White finish, Interior - White food safe plastic fitted with digital external temperature display. Frost free. Pull out drawers and open compartments. Energy consumption in units KWH/24H (1.5-1.7). Rated Load, Wattage (130-150). Hold over time (16h or more), Power supply (230 volts 50 Hz, single phase) fitted with rollers, reversible Door, Internal light, Fully automatic operation with voltage stabilizer, temperature dips alarm, Wheel: yes, Lock: yes, Supply with high capacity (minimum with 3 hrs power backup) UPS. 2 year parts and labor warranty	1 (one)		

4⁰ Refrigerator	Double solid door, 1 ⁰ C to 10 ⁰ C vertical freezer, 270 Ltr capacity, Defrost: NA, minimum 4 shelf + drawers, Wheel: yes, Lock: yes, Stabilizer in built/ has to be included separately. One year warranty.	1 (one)		
Data logger/Laptop	<p> PROCESSOR Processor 2nd Generation Core i5, Variant 2430M, Chipset Intel HM65 Express, Brand Intel, Clock Speed 2.4 GHz, Cache 3 MB (L3 Cache), MEMORY Expandable Memory Up to 8 GB, Memory Slots 2 (Unused Slots 0), System Memory 4 GB DDR3, STORAGE Hardware Interface SATA , RPM 5400, HDD Capacity 640 GB OPTICAL DISK DRIVE Optical Drive SuperMulti DVDR/RW with Double Layer Support, PLATFORM Architecture 64-bit, Operating System Windows 7 Home Basic DISPLAY Screen Size 14.0 Inch, Resolution 1366 x 768 Pixel, Screen Type High-Definition LED Brightview Display, GRAPHICS Dedicated Graphics Memory Type DDR3 Dedicated Graphics Memory Capacity, 1 GB Graphic Processor, AMD Radeon HD 6470M INPUT Web Camera 0.3 Megapixel, Pointer Device TouchPad, Keyboard Standard Keyboard with Homeroll keys AUDIO Internal Mic Digital Microphone, Speakers Altec Lansing speakers COMMUNICATION Ethernet 10/100 BASE-T Ethernet LAN, Wireless LAN 802.11 b/g/n, Bluetooth Yes, POWER Battery Backup Up to 3 hours Power Supply 90W AC Adapter, Battery Cell 6 cell, PORTS/SLOTS USB Port 3 x USB 2.0 Mic In Yes, RJ45 LAN Yes, HDMI Port Yes, VGA Port Yes, Multi Card Slot Yes MACHINE DIMENSIONS Weight 2.10 Kg , Dimension 341 x 231 x 35.6 mm, Color Charcoal Grey, WARRANTY 1 year Onsite Accidental Damage Protection </p>	1 (one)		
Color Laser Printer	<p> PRINT TECHNOLOGY:- Laser, PRINT SPEED:- 1 Black (Normal, letter): Up to 12 ppm; Color (Normal, </p>	1 (one)		

	<p>letter): Up to 8Ppm, PRINT RESOLUTION:- Black (Best): Up to 600 x 600 dpi; Black (Normal): Up to 600 x 600 dpi, Color (Best): Up to 600 x 600 dpi STANDARD PRINT LANGUAGES:- HP PCL 6, HP PCL 5c, HP postscript level 3 emulation, NUMBER OF PRINT CARTRIDGES :- 4 (1 each black, cyan, magenta, yellow), STANDARD CONNECTIVITY:- 1 Hi-Speed USB 2.0, 1 built-in 10/100 Ethernet, 1, Wireless 802.11b/g/n, WIRELESS CAPABILITY:- Yes, built-in Wireless 802.11 b/g/n, NETWORK CAPABILITIES:- Via built-in 10/100 Ethernet and Wireless 802.11 b/g/n, CONTROL PANEL:- 2-line, 16-character front panel display, 5 buttons (Cancel job, Left arrow, Right arrow, Select, Reverse), 3 LED indicator lights (Attention, Ready, Wireless), WPS button, FONTS AND TYPEFACES:- 84 scalable TrueType fonts (49 scalable TrueType and 35 postscript), MEDIA TYPES SUPPORTED:- Paper (bond, brochure, color, glossy, letterhead, photo, plain, preprinted, prepunched, recycled, rough), transparencies, labels, envelopes, cardstock, DUTY CYCLE (MONTHLY):- LETTER, A4 Up to 30,000 pages, DISPLAY 1.85" LCD, 2-line, 16-character display, MAXIMUM/STANDARD MEMORY:- 384 MB/128 MB, PAPER HANDLING 150-sheet input tray, 1-sheet priority feed slot, 125-sheet output bin; Input Handling:- Up to 150 Sheets, Up to 50 transparencies, Up to 50 post-cards, Up to 10 Envelopes; Output Handling: Up to 50 Sheets, Up to 50 transparencies</p>			
<p>Scanner</p>	<p>Scanner type:- Flatbed, Scan resolution, optical:- Up to 4800 dpi Bit depth:- 48-bit, Levels of greyscale:- 256, Transparency adapter:- Built-in (TMA); four 35 mm slides or five 35 mm negative frames Task speed:- 10 x 15 cm colour photo</p>	<p>1 (one)</p>		

	<p>to file: about 9 sec for multiple image scan, up to 28 sec for single image scan, 35 mm slides to file: up to 7 sec for multiple image scan, up to 26 sec for single image scan</p> <p>OCR A4 text page to Microsoft® Word: up to 28 sec for single image scan, 10 x 15 cm colour photo to share/e-mail: up to 21 sec for single image scan, A4 PDF to e-mail: up to 28 sec for single image scan,</p> <p>Scan size (flatbed), maximum:- 216 x 297 mm, Media types:- Paper (inkjet, laser, plain), photographic material (silver halide, pigment-dye), 3-D objects, 35 mm slides and negatives (using transparent media adapter)</p> <p>Scan file format:- Microsoft® Windows®: PDF, PDF searchable, TIFF, TIFF compressed, JPG, BMP, PNG, FPX, GIF, PCX, RTF, TXT, HTML; Macintosh: PDF, TIFF, JPG, FPX, GIF, PICT, RTF, TXT, HTML</p> <p>Connectivity, standard:- Hi-Speed USB 2.0</p>			
Shaker Incubator	<p>Drive: Uni-centric heavy duty counter balanced drive with DC brushless motors and permanently lubricated ball bearings Capable of calibrating temperature and speed via keypad, Temperature range is +7o C above ambient to 60 o C, Temperature uniformity : +/-0.5 o C at 37 o C, Orbit : 1.9cm, Speed: 50 - 400 RPM, Platform Size : 46 cm x 46 cm , Large easily seen LED display, Clamps for flasks of 2 liter (can hold 5 or more), Timer: Enables programmable shaking periods from 0.1 hr to 99.9 hrs.RS232 for data logging. Certifications: Meets UL, CSA & CE standards. One year warranty</p>	1 (one)		
Spectrophotometer	<p>Wavelength range should be from 200 to 1100nm with Accuracy: ± 0.5 nm, Repeatability: ± 0.2 nm, Resolution: 0.1nm (200 to1100 nm), Bandwidth: < 2 nm. Absorbance range should be 2.5 to 2.5 Abs (usable up to 4 Abs) with Accuracy ± 0.005 Abs at 1.0 Abs and repeatability at ± 0.002 Abs at 1.0 Abs. STRAY LIGHT:</p>	1 (one)		

	<p>Less than 0.05% at 220 nanometer and 340 nm. BASELINE COREECTION: Automatic Baseline correction, using Advanced digital processing (DSP) techniques. BASELINE FLATENESS: Within ± 0.003 Abs from 200 to 1100 nm (excluding noises), after baseline calibration. Scan speed: Slow, Medium and Fast (Typically 700 nm/min, 800 nm/min and 850 nm/min in slow, medium and fast for span of 600 nm) DATA INTERVAL: Depend on wavelength scan range and scan speed: minimum possible 0.1 nm for slow, 0.2 nm for medium, and 0.3 nm for fast scan speeds. SAMPLLE HOLDER: Five position automatic portioning 10 mm cuvette for samples and one fixed position for reference cuvette. SOURCE: Tungsten-Halogen lamp, 310nm to 1100 nm, Deuterium lamp with quartz window, 200 nm to 340 nm, preferred usage 200 nm yo 310 nm, DETECTOR: 2 Si-photodiodes. ORDER CUT-OFF FILTER- Four glass filters, automatically positioned to eliminate grating spectral order interferences. MINIIMUM VOLUME: Without cell riser 500 micro lt. in 1 ml cuvette, 2 ml in 4 ml cuvette, With cell riser 250 micro lt. in 1ml cuvette ;1 ml in 4 ml cuvette. OPERATING MODE: Single Wavelength, Multi- wavelength (max. 15 wavelength), Scan (with multiscan facility), and Time Scan (with derivative facility). MEASURING MODES: Absorbance, % transminase, Concentration(k factor, multistandard), Multi-component Analysis. AUTOMATIC CALIBRATION AND OPTIMISATION: (GLP/GMP validation programme), Baseline calibration, Source optimization, Cell optimization, Wavelength calibration, Electronic calibration, Auto zero/full scale setting and calibration for absorbance/transmittance. All done through utilities provided. system check on power on, for self-diagnosis. DATA PROCESSING: Peak</p>			
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	<p>Pick/point pick/vally pick, Expansion/compression of spectra, 1st,2nd, 3rd, 4th Derivatives, Averaging of scans, Subtraction of first two scan, Three levels of smoothening of spectra, Ratio, corrected ratio, 2point and 3 point. Net abs (three facilities can be used for DNA and protein analysis), Comparison of concentration DATA PRESENTATION: DISPLAY OF GRAPHICS AND TABULAR DATA on computer monitor permanent data storage on hard disk or floppy disk; hard copy of graphic and tabular data on printer POWER:230 V, ±10%, 50 Hz. DIMENTION: 490 (d)× 540(w)×180(h) mm STANDARD ACCESSORIES: 2 Matched 10 mm Quartz cuvettes Working software for operating in PC.</p>			
Digital Balance	<p>Weighing in different units· Piece Counting, Percentage (%) weighing, Density measurement for solid and liquid (With optional Eqp. & software) , High contrast, Large Backlight LCD display for easy viewing with A.E.P(Advanced Eye Protection), Standard RS 232 C Interface/, Hanger for below balance weighing, Automatic External calibration, Compiles GLP/GMP Standard, Dye cast aluminium design for long term stability and accurate results, Various weighing units like gm, mg, ct, oz, dwt, mom, GN,g,lb,ozt,t1T,t1H,t1S,Bat,MS, User selectable stability and filter level, USB Interface available (Optional), Capacity : 220gm, Readability: 0.001 mg , Repeatability(+/-) : 0.001 mg, Linearity(+/-) 0.002 mg, Pan Size(Mm / Inch) : 128x128mm/5.0"x5.0", Response Time : 2-3sec, Display: Backlite LCD Graphical Display, Calibration : Motorized Internal, Units Of Measure: G,mg,ct,GN,mo,oz,dwt,t1T,t1H,t1S,t1 S,MOM,Bat,MS Tare Range: Full</p>	1 (one)		
pH Meter	<p>pH Range 0.00 to 14.00 pH, Resolution & Accuracy 0.001 pH /</p>	1 (one)		

	±0.002 pH±1 Digit, pH Buffer : Min 3 (4, 7 & 10) , pH Slope and Offset Display 85-115%, 2 line, 20 character alphanumeric display, Temperature Compensation Automatic (optional) / Manual (0 to 99 °C), Temperature Range 0 to 99 °C, Temp Resolution / Accuracy 0.1 °C / ± 0.5 °C±1 Digit, Milivolt range: 0-1999 mV, Resolution:0.1 mV, Accessories: pH electrode, Temp Probe (PT-100 Sensor) Electrode stand and clamp			
Portable Autoclave	Vertical with radial locking system, built in safety valve pressure gauge, release valve and water level indicator. Pressure is adjustable from 5Psi to 20 Psi. Body made of Aluminum, Supplied with Stainless Steel basket and stand. Should operate on 220/230V AC. Capacity: minimum 20 ltr.	1 (one)		
		Total:		
Equipments under NICRA				
Feed Pelletizer	Function is to produce water stable pellets. Overall dimension : 385 x 380 x 465 (L x B x H, mm), Capacity: 10 kg of fish feed/h, Power required: 0.5 hp electric motor. The palletizer should consist of a feed hopper, barrel assembly with screw auger and die. The cooked material to be pressed through the die by the screw auger and pellets are to be formed	1 (one)		
		Total:		

Rupees.....
.....) only.

EMD amount: Rs..... No..... date.....

Enclosures:

Signature of Bidder
with seal

Filename: Specification of equipments under Biotech hub
Directory: C:\Documents and Settings\USER\Desktop
Template: C:\Documents and Settings\USER\Application
Data\Microsoft\Templates\Normal.dotm
Title: PCR System with Pre & Post PCR Accessories
Subject:
Author: acer
Keywords:
Comments:
Creation Date: 3/9/2012 7:52:00 PM
Change Number: 2
Last Saved On: 3/9/2012 7:52:00 PM
Last Saved By: Dhiman
Total Editing Time: 2 Minutes
Last Printed On: 3/9/2012 7:55:00 PM
As of Last Complete Printing
Number of Pages: 8
Number of Words: 2,111
Number of Characters: 11,616 (approx.)