

NOTICE INVITING TENDER

No. DFS.180/Mod/2010-2011/13/

Dated Guwahati the 25th February, 2011.

Sealed tenders affixing non-judicial court fee stamp of Rs.8.25 (Rupees eight and paisa twenty five) only are invited from reputed Manufacturers/Authorized Dealers/Authorized Distributors and Registered Suppliers for supply of equipment for the Directorate of Forensic Science, Assam, Kahilipara, Guwahati – 781 019 as per enclosed specification. The tenders sent by post should be properly sealed and addressed to the undersigned and should be sent through registered post /speed post/courier service.

TERMS AND CONDITIONS:

1. The intending tenderers may collect tender papers from the office of the undersigned on any working days during office hours or may download from the web site www.dfsassam.org.
2. The tender should reach the undersigned on or before 3.00 PM of **15th March, 2011** and no tender received thereafter will be accepted. The tenders will be opened on the same day at 4.00 P.M. in presence of the intending tenderers or their authorized representatives.
3. The tender is to be sent in two separate sealed covers super scribed as “Technical Bid” and “Commercial Bid” and both put together in a sealed envelope. The Technical Bid should contain all the technical specifications with leaflets/brochures etc. while the price bid should contain only the price with relevant taxes. The price bids of tenderers who qualify in their technical bids as per the specifications prescribed will only be opened for price consideration.
4. The technical bid should accompany earnest money deposit and should contain all the commercial terms and conditions.
5. All tenderers must submit along with their tenders the following documents in their technical bid duly Photostatted and attested.
 - (a) Up to date valid Tax clearance certificate with TIN number.
 - (b) In case of authorized dealer/distributor/agent, a certificate from the manufacturer to that effect.
 - (c) A list of users
 - (d) S.S.I. unit registration certificate wherever necessary.
 - (e) Central Excise clearance certificate in case of manufacturers
6. Tenderers will have to submit an earnest money, as indicated against each item, in the form of NSC/KVP/Bank draft/Fixed Deposit/Bank Guarantee/Call deposit pledged in favour of Director, Directorate of Forensic Science, Assam, Guwahati and should invariably be accompanied in the Technical Bid.. The successful tenderers will have to furnish 5% security deposit. The earnest money of the unsuccessful tenderers will be released after the finalization of the tenders.
7. The tenderers must mention the warranty period for the equipment quoted along with the availability of the service facility of the equipment.
8. The tenderers must also quote the rate of Annual Maintenance Contract beyond the warranty period where applicable.
9. The successful bidders will have to execute agreements before the issue of supply orders.
10. The Director, Directorate of Forensic Science, Assam does not bind himself to accept the lowest rate and may reject any or all tenders without assigning any reason thereof.
11. In case of any dispute, the decision of the undersigned shall be final and binding on all.

Director,
Directorate of Forensic Science, Assam
Kahilipara, Guwahati – 781 019.

NAME OF THE EQUIPMENT WITH SPECIFICATION.

Sl. No	Name Of the Equipment /item	Specification	Earnest Money
1	Automated DNA Sequencer	<p>a)General Specification:</p> <p>Fluorescence-based 8/24-capillary. The system should be based on proven technology of capillary electrophoresis Genetic Analysis system. The system should have all hardware and Software needed to operate and analyze data on DNA sequencing and genotyping .</p> <p>b)Capillary Electrophoresis Technology: Capillary should be uncoated internally with new generation of polymer optimized for its performance for medium to high throughput DNA sequencing and fragment analysis requirements . Should have choice of capillaries with different length and choice of polymer for variety of application. The system should also be capable of ‘one polymer one array’ for both sequencing as well as fragment analysis applications with easy switch over between the runs even on the same plate.</p> <p>c) Separation Matrix: The Instrument should be able to use appropriate flowable and performance optimized polymers as the separation matrix so that before each run , the capillaries should be automatically be replenished with fresh polymer that dynamically coats capillary wall to eliminate electro-osmotic flow. The system should have capability for tracking consumable using RFID technology to monitor usage, lot nos., part nos., expiry dates, and on instrument life time.</p> <p>d) Auto sampler plate kits: Fully integrated with both 96 and 384 well sample plates and standard/fast tubes, providing continuous , unattended operation for every phase of the process, including polymer-loading by means of automated polymer delivery system , sample injection ,separation, detection and data analysis for a true automation.</p> <p>e) Detection Technology: By using Virtual Filter and Peltier cooled charged coupled device (CCD) camera. The Excitation of all fluorescent dyes should be long life solid state laser 505 nm . The instrument should be capable odetecting minimum six Fluoroscent Dyes and readily accommodated new dyes sets and applications as they become available without requiring change in the optical hardware .</p> <p>f) Operating Temperature Range and Temperature Uniformity: i)The operating temperature range should be 18° C -65° C ii)Operating environment temperature 15° C -30° C iii)Room Temperature should not be fluctuate +/- 2° C when the instrument is running. iv)Humidity :20%-80% (non condensing) Temperature Uniformity.</p>	Rs 200000.00

		<p>g) Software and minimum computer Requirement :</p> <p>Intuitive easy to use software for data collection with single page display for common operation.Workflow driven user interface with real time data quality assessment and sample re-injection .</p> <ul style="list-style-type: none"> ➤ Forensic specific validated software (as per SWGDAM and DAB guidelines)for data analysis with expert functionality. ➤ Built-in mixture analysis tools for sample analysis. ➤ Hardware :Pentium IV processor ,2.00GHz processor . ➤ Operating system : Windows XP Professional Edition. ➤ Install RAM:1 GB ➤ Hard Disk Storage :160 GB hard drive. ➤ Peripheral: CD/RW. <p>h)Applications:</p> <ul style="list-style-type: none"> ➤ Run condition must be optimized for several applications, such as de novo or comparative sequencing, fragments analysis applications. ➤ The system should be a multi-application platform supplied with Gene Mapper ID Xver 1.2 software validated for use in Forensic application and compatible with validated STR Kits use in Forensic analysis ➤ Suitable software validated for Forensic analysis. Such that identification of genotype quality, pre-defined analysis settings for STR analysis, CODIS compatible reporting for easy uploading of data database. ➤ A full compliment of chemistry kits ,softwares, and accessory products should be available from the vendor. <p>i)Service and Warranty:</p> <ul style="list-style-type: none"> ➤ The vendor must have a fully functional own lab.(preferably NABL Accredited) to offer application training for forensic analysis with field Applicaton/Service support to help chemistry and instrumental problems. ➤ The instrument should carry warranty at least for 12 months from installation. ➤ On site operation and application training should provided . ➤ The vendor should submit their user list for at least 10 users in forensic applications along with their quote mentioning the contact details. 	
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2	Digital Forensic Imaging Spectrograph.	<p>CCD color camera:</p> <ul style="list-style-type: none"> ➤ Digital, HiSecgh Resolution, 1360 x 1024 pixels RGB out put, 10 μsec –60 S sec Integration time. <p>CCD black and White camera:</p> <ul style="list-style-type: none"> ➤ Digital, HiSecgh Resolution, 1360 x 1024 pixels RGB out put, 10 μ sec –60 S sec Integration time. <p>Spectral response:</p> <ul style="list-style-type: none"> ➤ 400 nm-1000nm. <p>Zoom Lens with motorized :</p> <ul style="list-style-type: none"> ➤ Zoom X 10 Motorized zooming, focusing autoiris Co-axial lighting. <p>Digital Zoom:</p> <ul style="list-style-type: none"> ➤ Unlimited. <p>Iris range:</p> <ul style="list-style-type: none"> ➤ F1.2-1000 <p>Imaging Filter:</p> <ul style="list-style-type: none"> ➤ Linear variable interference Filter to provide thresh hold wavelength at of all possible wave length between 400nm—100nm. <p>Pass band FWHM:</p> <ul style="list-style-type: none"> ➤ 25—45nm@ 500 nm, ➤ 35-50 nm @700 nm. ➤ 40-65 nm @ 900 nm <p>Spectral source:</p> <ul style="list-style-type: none"> ➤ High intensity tungsten lamp. <p>Minimal spectral examination:</p> <ul style="list-style-type: none"> ➤ 13 μ m² <p>Micro spectroscopy:</p> <ul style="list-style-type: none"> ➤ High resolution advance spectrometer with wavelength range 400 nm – 1000 nm, stray light less than 0.055, measurement mode absorption, reflectance, transmission and fluorescence in whole range. <p>Illuminating Source:</p> <p>a) Long- wave ultraviolet , incident and transmitted peak wave length --- 365 nm.</p> <p>b) Medium - wave Ultraviolet, incident peak wavelength- 313 nm</p> <p>c) Short-wave ultraviolet, incident peak wavelength— 256 nm.</p> <p>d) Visible/Infrared incident spot-- Adjustable</p> <p>e) Visible/Infrared transmitted-- Behind defusing window</p> <p>f) Visible /infrared coaxial— Spectrally designed Fiber optic illumination adapter .</p> <p>g) Visible /infrared, oblique—Angle and position Adjustable fiber optic adapter.</p> <p>h) Bright LED illumination for fluorescence imaging--- LEDs at each of the following eight wavelength as 455 nm, 470 nm, 505 nm, 630 nm, 850 nm..</p>	Rs 50000.00

Hyper Spectrum Processor for Forensic XP-4010D original color software based on hyper spectrum processing ,developed for color enhancement of original imaging spectrometer output.The exceptional sensitivity and broad spectral range permit to detect very small difference in similar ink.

- 16- bits per color channel processing.
- Image calibration and integration.
- Flexible spectral range selection.
- Original color enhancement algorithm
- Measure of color parameters XYZ,Luv,Lab value Display data on 1931 and 1960 UCS chromaticity chart.
- Split screen for simultaneous ink analysis from two separate documents.
- Markers for reference and questioned ink comparison.
- Area of interest zoom.
- Processed image reporting .
- Saving documents and processing options (Job save)

Image Analysis On –Screen Measurement .

Original 2D visualization software based on hyper spectrum processing for Forensic image enhancement .Aimed for detection of fine structure of the out put images produced by modern high resolution spectrometer in combination with digital spectral imager ,allows quantitative evaluation and comparison of data like hand writing and type writing etc .

- Feature position coordinates
- Distances.
- Angles.
- Areas.
- Diameter and radii.
- Unlimited stitch of images, captured from neighbouring areas of documents.
- On –screen rulers, grids and examiner notes.
- Calibration procedure allows absolute measuring values.
- Measuring statistics

Forensic 3D Surface View software for Forensic XP 4010 D:

Unique 3D visualization software in an open GL based application which works on hyper spectrum processing for the examination of ink differences and pen pressure etc. Its advance feature allows to detect drawing sequence of the lines with more than 80% correct hit statistics .

- User friendly interface .
- Fast real time rendering (rotation in all angles in space to optimized observation).
- Flexible zoom in all direction .
- Color palettes .
- Light adjustment .
- Web friendly out put images .
- Measurement of features .
- Two separate documents processing .

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3	UV VIS SPECTROPHOTO METER	<ol style="list-style-type: none"> 1. Photometric system-----Double beam. 2.Measuring range ----- 190-900 nm. 3. Processing/Operation <ul style="list-style-type: none"> ➤ Fully externally controlled by PC, window based software. ➤ Fully integrated Scan, ➤ Real time spectral display ➤ Calibration facility. ➤ Storage & reprocess of data ➤ Spectrum saving/retrieving to/from hard disk ➤ Spectrum overlay. ➤ Spectrum manipulation—Addition, subtraction, multiplication and division between any two channels. ➤ Result and reports created automatically. ➤ In built library. 4. All reflecting optical system (SiO₂ coated) with holographic grating. 5. Monochromator with 1440 lines/mm UV/VIS blazed at 240 nm littrow mounting, sample thickness compensated detector optics. 6. At least 4 segmented chopper mechanism for dark current compensation for sample and reference. 7. Photo multiplier detector. 8. Photometric accuracy <ul style="list-style-type: none"> ➤ Double Aperture method at 0.3A ➤ +/- 0.0006A ➤ NIST 1930 D filters 2A +/- 0.003 ➤ NIST 930 D filters1A +/- 0.003 A ➤ NIST 930 Dfilters0.5 +/-0.002A ➤ K₂Cr₂O₇ solution USP/DAP Method +/- 0.01 A 9. Photometric linearity at 3.0A,+/- 0.02 A 10. Photometric reproducibility <ul style="list-style-type: none"> ➤ ! A with NIST 930D Filter at 546.1 nm 11. Standard deviation ---0.0008A on 10 measurement . 12. Photometric stability 0.0002A/h 13. Photometric range ---6 A or more 14. Base line flatness <ul style="list-style-type: none"> ➤ +/-0.0008 A at 200nm—850nm,2nm slit, 0.2 sec .integration. 15.Base line correction-----Automatic. 16. Stray light---<0.0001 %T at 220, 320 and 340 nm. 17. Wave length accuracy----<0.06 nm with D2 lamp lines. 18. Optical resolution ----- <0.20 ,selectable up to 5 nm. 19.Quartz Cells with 10 mm pathlength with stopper & lid. 	Rs 10000.00

SL. No	Name Of the Equipment /items	Specification	Earnest Money
4	Crime Scene kit and Physical Evidence collection kit	<ol style="list-style-type: none"> 1. Measuring tape-----15m 2. Measuring Scale ---1 m (Steel) 3. Photographic Scale . 4. Flash light/Dragon light---white 5. Rolls of Evidence Tape—small 6. Hand Magnifier 7. Pairs of Scissors 8. Evidence Knife 9. Marker –white 10. Marker –black 11. Tweezers 12. Collection tubes with EDTA 13. Glass cutter 14. Portable UV Torch with Batteries -LED 6 volts. 15. Junior Hacksaw with pack odd spare blades. 16. Electrical Test Master Screwdriver 17. Glove pairs Disposable Latex 17. Probe with paint chip cutter 18. Musk 19. Cable cutter 20. Zip top bag –Polythene-- small and big 21. Inkless Round Fingerprint pad with elimination slips. 22. Evidence tag with ties small and big 23. Protective boots/overshoes 24. Customized carrying Case 	Rs 3000.00
5	Crime light	<p>High intensity 400 W mobile forensic field investigation lamp (complete kit) consisting of liquid glass guides with glass collimator ,three filter goggles completed with liquid night guides , quartz glass collimator, battery unit charger ,carrying case filter , goggles filter lorgnette, line illuminator with all accessories . The system should have maximum intensity in UV, blue and white light , integrated 10-fold filter wheel and having more than 60 minutes of battery life.</p> <p>The system should preferably have spectrum range of 320-700 nm, divided into into 10 spectra selectable by filter ,length of liquid light guide about 180 cm, height of fully extended telescopic arm about 140 cm ,operating voltage charger : 100-240V,50-60 Hz,12.24 DC with suitable adopter.</p>	Rs 7500.00

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6	Boroscope for Fire Arm Examination and Inspection	<p>Rigid Boroscope (Endoscopes suitable interchangeable objectives with adjustable / Rotable sleeves focusing and carrying case)</p> <ul style="list-style-type: none"> ➤ Working Dia – 4 mm - 4.5 mm ➤ Working length –620 mm - 650 mm <p>Interchangeable objectives Screwable to basic Unit of Boroscope (Endoscope)</p> <ul style="list-style-type: none"> ➤ Dia -- 4 mm - 4.5 mm. ➤ Direction of view 0° ➤ Field of view 80° - 90° <p>Rotable objective sleeves for easy all round inspection.</p> <ul style="list-style-type: none"> ➤ Dia -- 4 mm - 4.5 mm ➤ Length – 650 mm ➤ Direction of view 90° ➤ Field of view 80° - 90° <p>Battery –Powered LED light ource</p> <ul style="list-style-type: none"> ➤ Color temperature –5,500 K ➤ Max light intensity 20,000 L:UX ➤ Lamp life (average) 50,000 h LED-typical ➤ Recharge time about 2 h ➤ Power supply By rechargeable Lithium-ion battery ➤ Rechargeable battery with 	Rs 14000.00
7	Automated Currency Note Counter	<ol style="list-style-type: none"> 1. Hopper Capacity --- 300 notes 2. Stacker Capacity ----- 200 notes 3. Reject Pocket Capacity— 20 notes 4. Working Modes <ul style="list-style-type: none"> i) Mix mode ii) DD mode iii) Count mode 5. Batching 5-10-20-25-50-100 6.Speed value Mode 650 notes/min 7.Speed Count mode 650 notes/min 8. Interface USB,RS-232C 9. Dimensions (WxDxH) 340x335x345 mm 	Rs 500.00
8	Spare and accessories	<ol style="list-style-type: none"> a) Tri plus Auto Sampler for Thermo G.C b) Silver Seal, Terminal fitting, Nut for terminal fitting and Ptfе seal. c) 2.5 MI Syringe Plunger for Trace G.C. 	Rs 3000.00

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9	Laboratory Management Software	<p>Software modules should cover----</p> <ol style="list-style-type: none"> 1. Case management System 2. Financial Accounting modules 3. Library management system 4. File/Document tracking 5. Payroll management system 6. Biometric attendance device 7. Central purchase ,stores and distribution system . 8. Vendor management module 9. Utility module 10. RTI proposal management <p>Technology proposed and Software platforms:</p> <ul style="list-style-type: none"> ➤ Server--- Window 2003. ➤ Front-End ---ASP/ASP Net. ➤ Back-End-- MS-SQL <p>Security:</p> <ul style="list-style-type: none"> ➤ Data should be encrypted at all level so that no one can temper the data. ➤ Back up must be automatic such that there shall be no chance of data loss. <p>Qualification of the Bidder:</p> <ul style="list-style-type: none"> ➤ Should have an ISO2008/CEI level 3 certification or applied for the same. ➤ Supplied and commissioned similar software modules to at least three Govt/PSU/ Semi Govt Departments in India. 	Rs 10000.00