MAHARSHI DAYANAND UNIVERSITY, ROHTAK CENTRAL INSTRUMENTAL LABORATORY

E- tenders on behalf of Registrar is invited subscribed as "Tender for Equipment" (as per list) for the supply of Instruments as per detail given on website along with earnest money equal to 2% of the quoted rates on the total amount involved in the shape of Bank Draft along with a separate draft of Rs. 4000/- as tender fee in favor of Finance Officer, M.D. University, Rohtak so as to reach Director Research, Department of Chemistry, M. D. University, Rohtak up to 29/08/2016. The e- tenders will be opened on 30/08/2016 at 11.00 a.m. For details may visit on https://haryanaeprocurement.gov.in / wwwmdurohtak.ac.in

REGISTRAR

MAHARSHI DAYANAND UNIVERSITY, ROHTAK RESEARCH PROJECT CELL, M.D.UNIVERSITY, ROHTAK

Phone:-01262-393133

Email: hod.chem@mdurohtak.ac.in

STANDARD BIDDING DOCUMENT FOR PURCHASE OF EQUIPMENTS FOR THE ESTABLISHMENT OF CIL ON BEHALF OF REGISTRAR, M.D. UNIVERSITY, ROHATAK

PART1: COMPLETE BIDDING DOCUMENT

Name of work: Purchase of equipments for the establishment of CIL, in MDU, Rohtak.

PRESS NOTICE M.D. UNIVERSITY, ROHTAK Notice Inviting E-Tender		
Name of work	Purchase of equipments for the establishment of CIL, in MDU, Rohtak.	
Tender Docs Fee+ E Service Fees	Rs. 4000 + 1000 = Rs. 5000/-	
Earnest Money Time Limit	2 % of the quoted rate of Equipment 06 to 10 Weeks	
Tenders to be received till: 05.00 PM on dated	29.08.2016	
i) The tenders will be received only through E-te website <u>https://haryanaeprocurement.gov.in</u>	ndering for further details visit	
(ii) Cost of Bid document (to be paid Manual) is each bid to be deposited through Demand Draf Officer", M.D.U., Rohtak, payable at Rohtak.		

(iii) Willing Contractors shall have to pay is Rs. 1000/- the e- Service Fees in form of Demand Draft in favor of "Society for IT initiative fund for e - Governance" payable at Chandigarh.

Director Research M.D.U., Rohtak The Bidders can download the tender documents from the Portal: https://haryanaeprocurement.gov.in . Earnest Money and Document Fee Deposit have to be deposited through **Demand Drafts in favor of "Finance Officer, M.D.U., Rohtak, payable at Rohtak respectively.**

Willing Contractors shall have to pay the e- Service Fees of Rs.1000/ - in form of **Demand Draft** in favour of "Society for IT initiative fund for e - Governance" payable at Chandigarh.

However, the details of the EMD, Tender document Fee & E – Service Fee are required to be filled/ provided scan copies at the time of online Bid Preparation Stage; the Bidders are required to keep the EMD, Tender document fee & E- Service fee details ready beforehand. The contractual Agencies can submit their tender documents as per the dated mentioned in the key dates below:-

Sr. no.	M.D.U., Rohtak Stage	Contactor Stage	Start Date and Time	Expiry Date and Time
1		Tender Document Download and Bid Preparation&	12.08.2016 (10.00 A.M.)	29.08.2016 (05.00 PM)
2		Submission Manual submission of Specification of Equipment ,Tender Document fee, EMD and E-	12.08.2016 (10.00 A.M.)	29.08.2016 (05.00 PM)
3	Technical Opening	Service fee, etc.	30.08.2016 (10.00 AM)	30.08.2016 (05.00PM)
4	Technical Evaluation		30.08.2016 (10.00 AM)	30.08.2016 (05.00PM)
5	Opening of Financial Bid		30.08.2016 (10.00 AM)	30.08.2016 (05.00PM)

Key Dates

Important Note:

1) The bidders have to complete "Bid Preparation & Submission" stage on scheduled time as mentioned above. If any bidder failed to complete his/her aforesaid stage in the stipulated online time schedule for this stage, his/her bid status will be considered as "bids not submitted".

2) Bidder must confirm & check his/her bid status after completion of his/her all activities for e-bidding.

3) Bidder can rework on his/her bids even after completion of "Bid Preparation & submission stage" (Bidder Stage), subject to the condition that the rework must take place during the stipulated time frame of the Bidder Stage.

Instructions to bidder on Electronic Tendering System

These conditions will over-rule the conditions stated in the tender documents, wherever relevant and applicable.

1. Registration of bidders on e Procurement Portal:-

All the bidders intending to participate in the tenders processed online are required to get registered on the centralized e - Procurement Portal i.e. https://haryanaeprocurement.gov.in. Please visit the website for more details.

2. Obtaining a Digital Certificate:

2.1The Bids submitted online should be encrypted and signed electronically with a Digital Certificate to establish the identity of the bidder bidding online. These Digital Certificates are issued by an Approved Certifying Authority, by the Controller of Certifying Authorities, Government of India.

2.2A Digital Certificate is issued upon receipt of mandatory identity (i.e. Applicant "s PAN Card) and Address proofs and verification form duly attested by the Bank Manager / Post Master / Gazetted Officer. Only upon the receipt of the required documents, a digital certificate can be issued. For more details

please visit the website - <u>https://haryanaeprocurement.gov.in</u>.

2.3 The bidders may obtain Class-II or III digital signature certificate from any Certifying Authority or Sub -certifying Authority authorized by the Controller of Certifying Authorities or may obtain information and application format and documents required for the issue of digital certificate from: **M/s Nextenders (India) Pvt. Ltd**.

O/o. DS&D Haryana, SCO – 09, IInd Floor, Sector – 16, Panchkula – 134108 **E - mail:** Chandigarh@nextenders.com Help Desk: 1800-180-2097 (**Toll Free Number**)

2.4 Bid for a particular tender must be submitted online using the digital certificate (Encryption & Signing), which is used to encrypt and sign the data during the stage of bid preparation. In case, during the process of a particular tender, the user loses his digital certificate (due to virus attack, hardware problem, operating system or any other problem) he will not be able to submit the bid online. Hence, the users are advised **to keep a backup of the certificate** and also keep the copies at safe place under proper security (for its use in case of emergencies).

2.5 In case of online tendering, if the digital certificate issued to the authorized user of a firm is used for signing and submitting a bid, it will be considered equivalent to a no-objection certificate/power of attorney /lawful authorization to that User. The firm has to authorize a specific individual through an authorization certificate signed by all partners to use the digital certificate as per Indian Information Technology Act 2000. Unless the certificates are revoked, it will be assumed to represent adequate authority of the user to bid on behalf of the firm in the department tenders as per Information Technology Act 2000. The digital signature of this authorized user will be binding on the firm.

2.6 In case of any change in the authorization, it shall be the responsibility of management /partners of the firm to inform the certifying authority about the change and to obtain the digital signatures of the new person / user on behalf of the firm / company. The procedure for application of a digital certificate however will remain the same for the new user.

2.7The same procedure holds true for the authorized users in a private/Public limited company. In this case, the authorization certificate will have to be signed by the directors of the company.

3 Opening of an Electronic Payment Account:

For purchasing the tender documents online, bidders are required to pay the tender documents fees online using the electronic payments gateway service shall be integrated with the system very soon till then it will be submitted manually. For online payments guidelines, please refer to the Home page of the etendering Portal <u>https://haryanaeprocurement.gov.in</u>.

4 Pre-requisites for online bidding:

In order to bid online on the portal https://haryanaeprocurement.gov.in , the user machine must be updated with the latest Java & DC setup. The link for downloading latest java applet & DC setup are available on the Home page of the e-tendering Portal.

5 Online Viewing of Detailed Notice Inviting Tenders:

The bidders can view the detailed N.I.T and the time schedule (Key Dates) for all the tenders floated through the single portal e Procurement system on the Home Page at <u>https://haryanaeprocurement.gov.in</u>

6 Download of Tender Documents:

The tender documents can be downloaded free of cost from the eProcurement

portal https://haryanaeprocurement.gov.in

7 Key Dates:

The bidders are strictly advised to follow dates and times as indicated in the online Notice Inviting Tenders. The date and time shall be binding on all bidders. All online activities are time tracked and the system enforces time locks that ensure that no activity or transaction can take place outside the start and end dates and the time of the stage as defined in the online Notice Inviting Tenders.

8 Bid Preparation (Technical & Financial) Online/offline Payment of Tender Document Fee, eService fee, EMD fees.

8.1 The online payment for Tender document fee, eService Fee & EMD can be done using the secure electronic payment gateway. The Payment for Tender Document Fee and eService Fee can be made by eligible bidders/ contractors online directly through Debit Cards & Internet Banking Accounts and the Payment for EMD can be made online directly through RTGS / NEFT.

The secure electronic payments gateway is an online interface between contractors and Debit card / online payment authorization networks.

The electronic payments gateway service shall be integrated with the system very soon till then it will be submitted manually.

Hence, the bidders have to provide information and credentials related to manual payment submission at single portal e - Procurement system, under Technical Envelope of the respective tenders

8.2 The bidders shall **upload** their technical offer containing documents, qualifying criteria, technical specification, schedule of deliveries, and all other terms and conditions except the rates (price bid). The bidders shall **quote** the prices in price bid format.

NOTE:-

(A) Bidders participating in online tenders shall check the validity of his/her Digital Signature Certificate before participating in the online Tenders at the portal https://haryanaeprocurement.gov.in.

(B) For help manual please refer to the "Home Page" of the e Procurement website at https://haryanaeprocurement.gov.in, and click on the available link "How to...?" to download the file.

Director Research, M.D.U., Rohtak

TERMS AND CONDITIONS GOVERNING THE TENDERS FOR THE SUPPLY

1. Every e-tender shall be accompanied by the earnest money equal to 2% of the involved value and separate draft of Rs.4000/- as tender fee. The earnest money should be deposited through Bank Draft in favor of the Finance Officer, M.D. University, Rohtak, payable at the State Bank of India, Maharshi Dayanand University, Rohtak.

2. The e-tender received without earnest money or after the due date shall not be entertained except with the special approval of the competent authorities.

3. The supplies shall be executed within the time specified in the supply order which may be extended by the Registrar on other application of the supplier explaining reasons/circumstances due to which time limit could not be adhered to. In the event of the supplier failing to supply the material within time, he shall be liable to pay as compensation an amount equal to one percent or such small amount as the Registrar may decided on the said amount of the contract, for every day that the quantity remains incomplete, provided that the entire amount of compensation shall not exceed 10 percent of the total amount of the contract. An appeal against these orders shall however lie with the Vice Chancellor whose decision shall be final.

4. In case the contractor backs out of his contract, the earnest money deposited by him shall be forfeited besides any other action as may be considered necessary by the Vice-Chancellor.

5. All the charges including packing, forwarding and installation, taxes and other levies should be specified in the tender. The charges etc. not specified in the tender shall not be paid.

6. The quantity of material/supplies shall be subject to increase or decrease on the tendered rates. This increase or decrease shall be communicated by the University within 30 days of acceptance of the tender.

7. Supplies shall be made as per the schedule and within such time as is indicated in the supply order.

8. 100% payment will be made on receipt and inspection of goods to ensure the specifications and their good condition.

9. The rates accepted by the University shall be applicable up to 31.3.2017 and the supplier shall have to make supply during the period as and when required.

10. The e-tenders shall be opened in the office of Director Research, Department of Chemistry, M.D. University, Rohtak on 30.8.2016 at 10.00 a.m. by the Purchase Committee in the presence of contractor/supplier and the Committee reserves the right for negotiation thereafter if considered necessary.

11. The Registrar reserves the right to reject or accept any offer without assigning any reasons.

12. All disputes subject to Rohtak jurisdiction.

13. Guarantee/warrantee of items must be mentioned.

14. The University stands exempted from the payment of Central Excise Duty/Custom Duty. The rates be quoted keeping that fact in view, Necessary certificate will be provided by the University.

15. No tender documents will be issued and rates are to be offered on company's letter pad.

16. If a holiday occurs on the opening day, the tenders will be opened on the next working day.

17. Technical documents, tender fee demand draft and EMD must reach up to 29.08.2016 05.00 PM.

List of Technical Documents

Sr.No		Bidders Response
	Description	(Yes/No)
1	Authorization certificate from the manufacturer of equipment	
2	Copy of PAN card.	
3	Copy of latest income tax return.	
4	List of institutions where equipment has been installed	
5	Satisfactory report regarding the equipment from institution	
6	specification of Equipment	

Specification of Equipment at Sr .No. (I)

SPECIFICATION of Sophisticated Fluorescence Spectrometer (upto 1550-NIR)

[Having NIR and Quantum Yield Measurements Upgradable with Time Correlated Single Photon Counting (TCSPC) and Lifetime Measurement Accessories]:

- Modular Research Fluorescence Spectrometer with 450W ozone free Xe source or better and power supply, double Czerny-Turner excitation spectrometer with 1200 g/mm gratings blazed at 330nm, Single Czerny-Turner emission spectrometer with 1200 g/mm blazed at 500 nm, continuously adjustable entrance and exit slits operated under computer control, with all reflective optics, photodiode reference detector, and excitation shutter, R928 PMT 250-850nm emission detector, photon counting electronics, controlling software and instrument controller.
- > The optics in the Fluorescence Spectrometer system should be mirror based.
- Signal to noise ratio : 16,000:1 or better
- Excitation range: 250-950 nm, optimized in the UV
- Emission range: 250-950 nm, optimized in the Visible
- ➤ Wavelength Accuracy: +/- 0.5 nm
- Emission detector: R928PMT, 250-850nm working in Photon Counting mode
- Solid Sample Holder. Designed for viewing front-face fluorescence of thin films, powders, pellets, paper, fibers, or microscopic slides. Variable alignment angle.
- Necessary items for NIR fluorescence measurement up to 1550nm in T channel and items for quantum yield measurements with necessary holders for powder, thin films & liquid should be offered.
- Computer with Software for data collection, analysis and system control should be supplied
 - Software for data collection, time scan, kinetic analysis, film thickness measurement, Tm experiments and DIP measurements. These softwares should be loadable on any other similar platform for data analysis and interpretation. All software must be freely upgraded and any higher versions should be provided to the user by the vendor with free of cost.
- > **PC configuration**: Computer hardware manufacturer Dell
- a). Processor: i7 or better b). RAM: 8 GBB or greater c). Hard Disk: 1 TB or greater d). DVD writer e). LAN f). Monitor: 22" g). keyboard and optical mouse h). USB key etc or better.
- > The system should be future upgradeable in the field itself for
 - 1.Time correlated Single photon counting
 - 2. Automated Polarizers for Anisotropy measurements
 - 3. Phosphorescence etc.
- Online UPS system (Power backup of 3KV with batteries for at least 30 mins. power back up).
- > System should operate in single phase

Specification of Equipment at Sr .No.(II)

Potentiostat/ Galvanostat/EIS Analyzer

Advanced electrochemical system with high frequency capability to measure various current & voltage ranges with high precision measurement. System designed to suit various applications and options to upgrade in future for various applications.

- Voltage compliance: ± 48V or better as standard without booster
- Current compliance: ± 4A as standard (Option should be provided for future

up gradation up to 20A)

- Applied voltage range: Min ± 10V
- Applied voltage resolution: 300 nV
- Applied voltage accuracy: <±1mV ± 0.025% of setting
- Measured Voltage accuracy ± 0.2% of reading, ± 2mV
- Maximum scan rate: 10KV per second with 10mV step
- Applied current range: ± 4000mA as standard without booster
- Min current range / resolution: ±40pA / 1.2fA and options to be provided for future

up gradation to measure in atto amps resolution range.

- Electrometer bandwidth: Min 10MHz
- Electrometer input impedance: Min $10^{13}\Omega$
- Measured voltage resolution: 2 μV or better
 Measuring current min range / resolution: 40pA / 1.5fA
- EIS mode: Potentiostatic / Gavanostatic, mott-schottky
- Frequency range: 10µHz to 5 MHz or better preferably with In-built FRA Frequency analysis should be possible for the entire complete compliance current and voltage range --max up to 4A and 48V range
- Sweep: Linear or Logarithmic
- Data acquisition: Possibly with high speed like 1M samples/ second ADCs
- Additional data acquisition for external devices like Ph. , Temp along with polarisation data
- Floating option required for grounded cells

Software requirements:

Software should be capable to perform & analysis the following techniques

Open Circuit, Linear Scan Voltammetry, Cyclic Voltammetry (single), Cyclic Voltammetry (multi cycles) Staircase Linear Scan Voltammetry, Staircase Cyclic Voltammetry (single) Staircase Cyclic Voltammetry (multi cycles), Chronoamperometry, Chronopotentiometry, Chronocoulometry, Recurrent Potential Pulses, Recurrent Galvanic Pulse - Two Step SquareWave Voltammetry, Differentail Pulse Voltammetry, Normal Pulse Voltammetry, Reverse Normal Pulse Voltammetry, Zero Resistance Ammeter (ZRA), Galvanic Corrosion, Cyclic Polarization, Linear Polarization, Tafel, Electrochemical Noise, Split LPR, Potentiostatic, Potentiodynamic, Galvanostatic, Galvanodynamic, Dynamic iR, Constant Current, Constant Potential, Constant Resistance, Constant Power, MultiVertex Scan, Current CCDPL , Power CCD, Charge-Discharge, CC-CV, GITT , PITT , Resistance CCD, Potentiostatic EIS* , Galvanostatic EIS* , Mott – Schottky, , Deposition , Equilibration Purge, iR Determination ,

Accessories:

Flat Cell is supplied complete with a silver/silver chloride reference electrode and a platinum-on-niobium counter electrode.

Specification of Equipment at Sr .No. (III)

DIGITAL FORENSIC KIT

Generic specifications <u>CATEGORY: HIGH- END FORENSIC WORKSTATION</u> FRED TANDARD FORENSIC RECOVERY OF EVIDENCE DEVICE -23 3/4" High, 8 3/8" Wide, 25 1/4" Deep - 80 lbs -

- Intel Core i7-5820K CPU (Hex Core Processor), 3.3 GHz, 10MB Intel Smart Cache, 5 GT/s DMI-64 • GB PC3-17000 DDR4 2133 MHz Memory-1 x 256 GB Solid State SATA III Drive - OS Drive -1 x 128 GB Solid State SATA III Drive - Temp/Cache/DB Drive-1 x 2.0 TB 7200 RPM SATA III Hard Drive - Data Drive installed in HotSwap Bay1-Nvidia GTX 750Ti 2GB 128 bit DDR5 PCI-Express Video Card with 1 VGA (D-Dub), 1 HDMI, and 2 DVI ports - supports up 4 displays-22" WideScreen LCD Monitor with Built-in Speakers-Windows 10 Professional (64 bit)-Also includes: SUSE Professional Linux (64 bit)-Integrated Forensic Media Card Reader - Read-Only and Read/Write switchable-ATX Tower Case 12 x 5 1/4" Bays-1100 Watt Modular power supplyi7 Motherboard with Intel X99 Chipset-7 PCI-Express 3.0(x16) Slots-8 ports Intel 6 Gb/s SATA Controller-1 port Intel SATA Express Controller (or 2 x SATA 6 Gb/s ports)-1 port ASMedia SATA Express Controller (or 2 x SATA 6 Gb/s ports)-8 Channel High Definition Audio CODEC featuring Crystal Sound 2-2 RJ45 LAN ports (Intel I210-AT, 1 x Gigabit LAN Intel I218LM, 1 x Gigabit LAN Controllers)-2 eSATA 6 Gb/s ports - ASMedia controller-14 USB 3.0/2.0 ports - 11 Back Mounted, 3 Front Mounted-2 USB 3.1 ports - 2 Back Mounted-1 Write Blocked USB 3.0/2.0 port - Front Mounted-2 FireWire IEEE 1394b (800 MB/s) ports - 1 Back Mounted, 1 Front Mounted(Write Blocked)-2 x Shock Mounted SATA Removable Hard Drive Bays (IDE Capable)-4 x HotSwap Shock Mounted Universal (IDE/SATA compatible) Removable Hard Drive Bays-BD-R/BD-RE/DVD+-RW/CD+-RW Blu-ray Burner Dual-Layer Combo Drive-103 key Keyboard and Mouse Combo - Wireless-Extendable/Retractable Imaging Workshelf with integrated ventilation-USB 3.0 integrated forensic bridge that includes a touch screen display and a graphical user interface for acquisition process monitoring providing ultimate flexibility for write-blocked acquisitions from up to eight different types of storage media: IDE, SATA, SAS, USB 3.0/2.0/1.1 and FireWire 400/800.-All components like Integrated WriteBlocker, Hot Swappable Balys etc should be connected to the motherboard on USB 3.0.
- 1. <u>Toolbox Containing-</u>CD Case: Containing system restore media.-System Keys: For removable hard drive bays and front case bezel.-Adapters and Cables: Cables and adapters to image and process internal/external drives including SAS, SATA, IDE, microSATA, SATA LIF, MacBook Air Blade Type SSDs, mini/micro SSD cards, 1.8 inch IDE (iPod) and 2.5 inch IDE (laptop).-Digital

Camera: Useful to document your suspect's environment and hardware.-Security Screwdriver Set: A varied assortment of popular security bits for opening computer enclosures that may have been locked down in a corporate environment.-**THE HIGH-END FORENSIC WORKSTATION SHOULD COME PRE-INSTALLED WITH THE FOLLOWING SOFTWARE:-**FORENSIC EXPLORER FOR HARD DRIVE/ LAPTOP FORENSICS-UNIVERSAL FORENSIC EXTRACTION DEVICE (SOFTWARE)-HELIX 3 PRO FOR LIVE FORENSIC/ VOLATILE MEMORY-Other Software included: Symantec Ghost, CD Authoring Software, DRIVESPY, IMAGE, PDWIPE, PART, and PDBLOCK-UPS OF 2KVA MUST BE SUPPLIED.

Specification of Equipment at Sr .No.(IV)

Repitative Transcraninal Magnetic Stimulator (r-TMS) along with Evoked Potential (MEP) monitoring should have following Technical Specifications:-

- Liquid cooled /Air cooled coil. And Multiple Pulse mode.-Should have Nerve Conduction Studies MCS, NCS,F wave ,H reflex, Collision, Blink reflex, EP studies & with Room temperature displayed on Main Console.-Detect motor response threshold by a 2-4 channel electromyography systems-Should have provision of MEP, NCV, Evoked Potential data review in the electromyography system-EP Unit should be synchronized with r-tms.-Main Unit should be connected to the Computer through the latest and powerful USB 2.0 interface.-Should have Brain stem auditory evoked potentials, Visual Evoked potential & Somatosensory Evoked potential-Have a placebo/sham stimulation coil.-Sweep mode with variable repetition rate.-All stimulus parameters displaced on TFT Screen.-Automatically sequence setup and user define Flexible Protocol storage in built in computer-R-TMS for biphasic rapid rate magnetic stimulator
- Pulse train interval user selectable with 0.1 sec. increment and pulse width of 400µ sec.-r-TMS will be supplied with two double 70 mm air cool coiled, coils stand holder System can be operated on 220 volts 50Hz.-
 - Systems have facility paired- pulse stimulation, dual- pulse stimulation-Flexible protocol storage in built-in computer.-Based on the "Biphasic (Full Sine)" technology.-Repetitive, single and inhibitory treatment modes available.-Settings for Frequency, ITI (Inter Train Interval), NT-(No. of Trains), PIT (Pulses in Train) and IPI(Inter Pulse Interval).-Supplied with two stimulation coils (butterfly), two sham placebo coil, two circular coil.-High power design for deep Train cranial stimulations. (32KT at coil surface)-Inbuilt sample protocols for Psychiatric and neurology Disorders.
 - User configurable protocols.-Inbuilt continuous core temperature monitoring for safe operation.-Biphasic pulse width up to 320 micro seconds.-Stimulation rates from 0.5pps to 100pps.-Color TFT screen with complete parameters for easy operation.-Internal memory for storage of user defined protocols.-Real-time MEP monitoring software.-External trigger and USB interface for MEP monitoring.-Comprehensive patient database storage in PC for MEP monitoring.-- Electrical Stimulator: 2 channels monophasic / biphasic, constant current with artifact-compensation.-Automatic analysis and monitoring of fault conditions.-The system should operate on 220 v 50Hz.-Warranty/gurantee will be Three years.-The cooled coil should be able to at least stimulate 4000 pulse at 1 Hz with 755 power
- Should be IEC 60601 -1 approved for electrical safety of Medical Equipment and should have ISO – 13485- 2003 certified-Should have facility of exporting data to csv or any other suitable format for analysis with MATLAB or any other third party software-Good quality pc with strict inhouse quality checks by manufacturer to comply with medical equipment standard. A PC should be with 3rd generation 13 processor, 2GB RAM, 500 GB Hard Disk, 4USB ports or better b. Built in DVD Super Multi Drive c. With 18.5" colour TFT LCD display d. Suitable latest Windows operating

system e. Supplied with laser Printer/Coloured Inkjet supplied with min. 30 minutes back up.