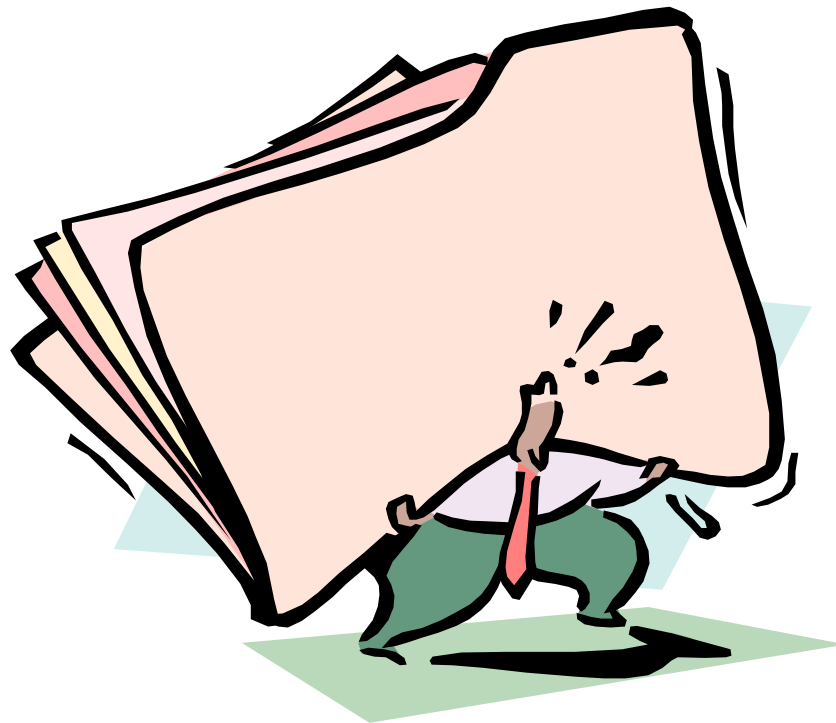


ANNEXURES

Tender Document No:

HPSEDC/CC/HW/SW/2k9



ANNEXURE-I **Configuration of PC's And Server's**

1.

CATEGORY-A

SERVER CONFIGURATION – I

Quantity: 2

Server with:

- Motherboard either OEM of the Computer Manufacturer or that of Intel with Intel validated/ certified chassis (in case of the OEM M/B also, same standards of chassis should be followed)
- Intel Xeon Quad Core **Processor E5520** (Nehalem) with single Processor capable of up gradable to dual processor
- 8 MB L2 Cache
- **5.86 GT/s Intel QPI FSB**
- Intel 5500 series **or equivalent/ better Server** Chipset
- 8 GB DDR3 RAM @1066 Mhz with ECC (expandable up to 64 GB)
- 5 PCI Slots [64 bit (100& 133 MHz) with PCI-X 1.0 support, 32bit]
- Integrated 4 Ports SAS 3.0 Gbps RAID controller with 256 MB battery backed cache & hot plug HDD (separate card may be added for RAID if required)
- Dual Ethernet controller (10/100/1000 Mbps) with full duplex
- Graphics controller with a minimum of 8 MB Display memory
- Integrated on Mother Board 6x SATA Ports
- 3x 300 GB SAS Hot Plug HDDs (15K rpm) with RAID 5 implementation
- 16x or higher DVD-Writer
- **1x Serial, 6xUSB, 1xVGA , 2xRJ45**
- Bays : 1x3.5" External , 2x5.25" External, 4x3.5" (Hot Swap)
 - 18.5" widescreen TFT colour monitor with maximum 0.3 mm dot pitch, TCO-03, 1360x768, 1000:1 contrast ratio, 250 cd/m2, 5ms response time,160/160 degree view angle, VGA connectivity, EMI/FCC (or ETDC Report for meeting FCC norms) compliance, same brand as that of PC.
 - 104 Keys OEM Keyboard (**it must have soft keys and should be shown on the day of tender**) same brand as that of Server

- Optical Mouse of same brand as that of Server.
- **Warranty:** 3 years comprehensive on-site.
- **Bundled System software** should be equipped with the System Configuration and management Tools, OS Installation and Configuration utility, System Information Utility Software. Driver Software for all the adapters as per the configuration and OS required and all the related Manuals as per above.
- **Server Management Software (OEM or Intel):** (a) Remote management of the server over LAN (b) Remote power soft-shutdown if the OS is up & running (particularly windows) (c) Integrated Management Log (d) Server health logging (e) Failure detection for voltage variation, thermal OS watchdog, fan failed, drive failed etc. (f) CPU heat sink fan check.
- **Certifications:** FCC (EMI EMC/ ETDC), UL certified, ISO 9001: ISO 14001, PCI 2.2 Compliant, ACPI 3.0a/ROHS Compliant, IPV6 compatible.
- **OS Certifications:** Windows Server 2008 and Red Hat **Linux Enterprise Edition** 5.0
- **Intel Certified (or equivalent as above) Server Chassis** with Hot Swap Redundant power supply, 2-rpm motorable fans

SERVER CONFIGURATION – II

Quantity:15

Server with:

- Motherboard either OEM of the Computer Manufacturer or that of Intel with Intel validated/ certified chassis (in case of the OEM M/B also, same standards of chassis should be followed)
- Intel Xeon Quad Core **Processor E5405** with Single Processor capable of up gradable to dual processor
- 12 MB L2 Cache
- 1333 Mhz FSB
- Intel 5000P series **or equivalent/ better Server** Chipset
- 4 GB DDR2 PC2-5300 with ECC (expandable up to 16 GB)
- 5 PCI Slots [64 bit (100& 133 MHz) with PCI-X 1.0 support, 32bit]
- Ethernet controller (10/100/1000 Mbps) with full duplex
- Graphics controller with a minimum of 8 MB Display memory
- Integrated on Mother Board 4x SATA Ports
- 2x 300 GB SAS HDDs (15K rpm) with RAID 1 (and support for RAID 5)
- 16x or higher DVD-Writer
- **1x Serial, 6xUSB, 1xVGA , 2xRJ45, 2 PS/2 port**
- Bays : 1x3.5" External , 2x5.25" External, 4x3.5" (Hot Swap)
- 18.5" widescreen TFT colour monitor with maximum 0.3 mm dot pitch, TCO-03, 1366x768, 600:1 contrast ratio, 250 cd/m2, 5ms response time,160/160 degree view angle, VGA connectivity, EMI/FCC (or ETDC Report for meeting FCC norms) compliance, same brand as that of PC.
- 104 Keys OEM Keyboard (**it must have soft keys and should be shown on the day of tender**) same brand as that of PC
- Optical Mouse of same brand as that of PC
- Warranty: 3 years comprehensive on-site.
- **Bundled System software** should be equipped with the System Configuration and management Tools, OS Installation and Configuration utility, System Information Utility Software. Driver Software for all the adapters as per the configuration and OS required and all the related Manuals as per above.

- **Server Management Software (OEM or Intel):** (a) Remote management of the server over LAN (b) Remote power soft-shutdown if the OS is up & running (particularly windows) (c) Integrated Management Log (d) Server health logging (e) Failure detection for voltage variation, thermal OS watchdog, fan failed, drive failed etc. (f) CPU heat sink fan check.
- **Certifications:** FCC (EMI EMC/ ETDC), UL certified, ISO 9001: ISO 14001, PCI 2.2 Compliant, ACPI 3.0a/ROHS Compliant, IPV6 compatible.
- **OS Certifications:** Windows Server 2008 and Red Hat **Linux Enterprise Edition 5.0**
- **Intel Certified (or equivalent as above) Server Chassis** with Hot Swap Redundant power supply, 2-rpm motorable fans .

SERVER CONFIGURATION – III

Quantity: 7

Server with:

- Motherboard either OEM of the Computer Manufacturer or that of Intel with Intel validated/ certified chassis (in case of the OEM M/B also, same standards of chassis should be followed)
- Intel Xeon Quad Core Pro X3430 Processor
- 8 MB L2 Cache
- Direct Media Interface
- Chipset: Intel 3420 or equivalent/ or better
- 2X2 GB DDR2 @800 MHz SDRAM with ECC expandable up to 8 GB
- 5 PCI Slots [3x PCI & 2 PCI Express]
- Ethernet controller (10/100/1000 Mbps) with full duplex
- Graphics controller with 8 MB Display memory
- Integrated on Mother Board 4 SATA Ports
- 2x250 GB SATA HDDs (10K or higher rpm) with RAID 0,1 support
- 16x or higher DVD-Writer
- Port: 1x Serial, 6 xUSB, 1xVGA , 2xRJ45,
- Bays : 2x5.25” External , 4 x 3.5” Internal Bays
- 18.5" widescreen TFT colour monitor with maximum 0.3 mm dot pitch, TCO-03, 1366x768, 1000:1 contrast ratio, 250 cd/m2, 5ms response time,160/160 degree view angle, VGA connectivity, EMI/FCC (or ETDC Report for meeting FCC norms) compliance, same brand as that of PC.
 - 104 Keys OEM Keyboard (**it must have soft keys**) , same brand as that of PC
 - Optical Mouse of same brand as that of PC
 - Warranty: 3 years comprehensive on-site.
- **Bundled System software** should be equipped with the System Configuration and management Tools, OS Installation and Configuration utility, System Information Utility Software. Driver Software for all the adapters as per the configuration and OS required and all the related Manuals as per above.
- **Server Management Software (OEM or Intel)** : (a) Remote management of the server over LAN (b) Remote power soft-shutdown if the OS is up & running (particularly windows) (c) Integrated Management Log (d) Server health logging (e)

Failure detection for voltage variation, thermal OS watchdog, fan failed, drive failed etc. (f) CPU heat sink fan check.

- **Certifications:** FCC (EMI EMC/ ETDC/UL) certified, ISO 9001:2000 Compliant, ISO 14001 Compliant, PCI 2.2 Compliant, ACPI 3.0 /ROHS Compliant, IPV6 compatible.
- **OS Certifications:** Windows Server 2005/2008 and Linux

Server Chassis with adequate power supply and motorable fans

2.

**CATEGORY-B
CONFIGURATION – (Intel Atom Dual Core based PC)**

Quantity:

The System with:

- Motherboard either branded for OEM of the Computer Manufacturer or that of Intel
- Intel Atom 330, 1.6 GHz Processor
- 1 PCI slot
- 1MB L2 cache
- **533 MHz FSB**
- Intel 945GC Chipset or higher
- Dual Channel 2x 1 GB DDR2 667 MHz SDRAM Non ECC.
- 160 GB (7200 rpm) SATA Hard Disk Drive
- 16x DVD-RW Drive
- Integrated on M/B Intel HDTM, Digital AC97- 20 Bit/High Definition Audio Codecs (or equivalent) audio
- Integrated on M/B display controller with Intel Graphics Media Accelerator 950
- **Integrated dual channel Serial ATA controller**
- Integrated on M/B 10/100 Mbps Ethernet controller with full duplex & WOL support
- Ports - 4xUSB(2 Front, 2 rear), 1x PS/2 Mouse, 1x PS/2 KBD, 1xVGA & 1xRJ45, line-in, line-out, wireless Antenna 1397 802.11b/g on USB (optional)
- 104 Keys OEM English Keyboard (**it must have soft keys and should be shown on the day of tender**), same brand as that of PC.
- 18.5" widescreen TFT colour monitor with maximum 0.3 mm dot pitch, TCO-03, 1366x768, 1000:1 contrast ratio, 250 cd/m2, 5ms response time,160/160 degree view angle, VGA connectivity, EMI/FCC (or ETDC Report for meeting FCC norms) compliance, Energy star compliance same brand as that of PC.
- Optical Mouse of same brand as that of PC.
- Desktop Management Interface (DMI) or CIM implementation
- Antivirus Software (latest version of MacAfee or Norton) in media to take care of all and latest viruses

Ultra Small Form Factor Chassis i.e. Mini ITX/ Micro ATX SFF (preferably tool free) with at least 1 internal and 1 external bays and adequate power supply.

- Warranty: 3 years comprehensive on-site.

Manageability Features:

- Asset Management: Gives summary of computer: BIOS, Disk Drives, Installed Applications, Memory, Motherboard, Slots, Multimedia, OS Information, USB Ports, Processor, System Resources, asset tag.
- Health Monitoring: Log entry for critical changes in Drive (Space)
- Security : Removable media boot control and USB interface control , power on and setup password. Provision for external lock and Kensington slot (Desirable) .
- Remote Management : Remote shutdown, Reboot

Certifications :

- Designed for Windows XP/Vista Business
- Linux Ready, Novell Client
- Energy Star
- FCC (EMI, EMC/ ETDC) certified
- IPV6 Compatible
- PCI 2.3 compliant
- ACPI 3.09 compliant
- ISO 9001: 2000 certification for design, manufacturing and services.
- ISO 14001: 1996 certification for environmental standards

Preloaded Windows XP SP3 – Downgrade Vista Business with recovery CD and Drivers (as a Microsoft Partner) or latest OS, Latest Antivirus Software with one year update facility

DESKTOP CONFIGURATION – (Celeron based)

Quantity: 30

The System with

- Motherboard either branded for OEM of the Computer Manufacturer or that of Intel
- 4 PCI (PCI 2.3 compatible) slots.
- Intel Celeron E1500 Processor
- 512 KB L2 cache
- 800MHz FSB
- Intel G4x Series Express Chipset
- 2X 1 GB DDR3 RAM 800 MHz Non ECC (Expandable up to 4 GB)
- 160 GB SATA Hard Disk Drive (7200 rpm or higher)
- 16x DVD-RW
- Intel GMA4500 Integrated Graphics
- Integrated on M/B with High Definition Audio
- **Integrated Serial ATA (3 Gbps) controller with 3 ports**
- Integrated on M/B 10/100/1000 Mbps Ethernet controller with full duplex & WOL support
- Ports -1x Parallel, 1xSerial, 8 USB (6 Rear, 2 Front), 1xVGA & 1xRJ45 (**in case parallel or serial ports are not available then bidder has to give USB to parallel/ Serial Converter**)
- 18.5" widescreen TFT colour monitor with maximum 0.3 mm dot pitch, TCO-03, 1366x768, 1000:1 contrast ratio, 250 cd/m², 5ms response time, 160/ 160 degree view angle, VGA connectivity, EMI/FCC (or ETDC Report for meeting FCC norms) compliance, Energy star compliance same brand as that of PC.
- 104 Keys OEM English Keyboard (**it must have soft keys**) , same brand as that of PC
- Optical Mouse of same brand as that of PC.
- Desktop Management Interface (DMI) or CIM implementation
- Antivirus Software in media to take care of all and latest viruses

ATX/BTX/Micro ATX Chassis with 1 x 3.5" & 2 x 5.25" front accessible bays , 2 x3.5" internal drive bays and adequate power supply.

- Warranty: 3 years comprehensive on-site.

Manageability Features:

- **Asset Management:** Gives summary of computer: BIOS, Disk Drives, Installed Applications, Memory, Motherboard, Slots, Multimedia, OS Information, USB Ports, Processor, System Resources, asset tag.
- **Health Monitoring:** Log entry for critical changes in Drive (Space), CPU Fan (Speed), CPU voltage, CPU Temperature. Automatic shutdown can be set when CPU temperature exceeds threshold limit.
- **Security:** Removable media boot control and USB interface control, power on and setup password. Provision for external lock and Kensington slot (Desirable)
- **Remote Management :** Remote shutdown, Reboot

Certifications:

- Designed for Windows XP/Vista Business
- Linux Ready, Novell Client
- Energy Star 5.0
- UL, FCC (EMI, EMC/ ETDC) certified
- PCI 2.3 compliant
- ACPI 1.0 compliant
- ISO 9001: 2000 certification for design, manufacturing and services.
- ISO 14001: 1996 certification for environmental standards
- IPV6 compatible

Preloaded Windows Vista Business or latest OS with recovery CD for I and Drivers (as a Microsoft Partner), Latest Antivirus Software with one year update facility

DESKTOP CONFIGURATION – (Intel Dual Core)

Quantity: 110

The System with

- Motherboard either branded for OEM of the Computer Manufacturer or that of Intel
- 4 PCI Slots (including minimum 1*PCIx16 slot)
- Intel Dual Core E5300 or higher Processor .
- 2 MB L2 cache
- 800 MHz FSB
- Intel G4x Series Express Chipset with ICH10 or better
- 2 GB DDR3 RAM 1066 MHz Non ECC (Expandable up to 4 GB)
- 250 GB SATA Hard Disk Drive (7200 rpm with SMART).
- 16X or higher DVD-RW
- Integrated on M/B with High Definition audio (or equivalent)
- Intel GMA4500 Integrated Graphics
- **Integrated Serial ATA (3 Gbps) controller with 4 ports**
- Integrated on M/B 10/100/1000Mbps Ethernet controller with full duplex & WOL support
- Ports -1x Parallel, 1xSerial, Rear:6xUSB, Front:2 USB, 1x PS/2 Mouse, 1x PS/2 KBD, 1xVGA & 1xRJ45
- 18.5" widescreen TFT colour monitor with maximum 0.3 mm dot pitch, TCO-03, 1366x768, 1000:1 contrast ratio, 250 cd/m2, 5ms response time,160/160 degree view angle, VGA connectivity, EMI/FCC (or ETDC Report for meeting FCC norms) compliance, Energy star compliance same brand as that of PC.
- 104 Keys OEM English Keyboard (**it must have soft keys**) , same brand as that of PC
- Optical Mouse of same brand as that of PC.
- Antivirus Software in media to take care of all and latest viruses

ATX/BTX/MicroATX Chasis with 1 x 3.5" & 2 x 5.25" front accessible bays , 2 x3.5" internal drive bays and adequate power supply.

- Warranty: 3 years comprehensive on-site.

Manageability Features:

- Asset Management : Gives summary of computer: BIOS, Disk Drives, Installed Applications, Memory, Motherboard, Slots, Multimedia, OS Information, USB Ports, Processor, System Resources , asset tag.
- Health Monitoring: Log entry for critical changes in Drive (Space), CPU Fan (Speed), CPU voltage, CPU Temperature. Automatic shutdown can be set when CPU temperature exceeds threshold limit.

- Security : Removable media boot control , serial , parallel and USB interface control , power on and setup password. Provision for external lock and Kensington slot (Desirable) .
- Remote Management : Remote shutdown, Reboot

Certifications :

- Designed for Windows XP/Vista Business.
- Linux Ready, Novell Client
- Energy Star 5
- UL, FCC (EMI EMC) certified
- PCI 2.3 compliant
- ACPI 1.0 compliant
- ISO 9001: 2000 certification for design, manufacturing and services.
- ISO 14001: 1996 certification for environmental standard
- IPV6 compatible

Preloaded Windows Vista Business or latest OS with recovery CD and Drivers. Latest Antivirus Software with 90 days update facility

DESKTOP CONFIGURATION – (Intel Core 2 Duo)

Quantity: 1120 Nos

The System with

- Motherboard either branded for OEM of the Computer Manufacturer or that of Intel
- 4 PCI Slots (Including minimum 1*PCIx16 slot)
- Intel Core 2 Duo E7500 or higher Processor
- 3 MB L2 cache
- 1333 MHz FSB
- Intel G4X Series Express Chipset with ICH10 or better
- 2 GB Dual Channel DDR3 1066 MHz Non ECC (Expandable up to 8 GB)
- 250 GB SATA Hard Disk Drive (7200 rpm with SMART).
- 16X or higher DVD-RW
- Integrated on M/B High Definition audio
- Intel graphics GMA 4500 Integrated
- **Integrated Serial ATA (3 Gbps) controller with 4 ports**
- Integrated on M/B 10/100/1000Mbps Ethernet controller with full duplex & WOL support
- Ports -1x Parallel, 1xSerial, Rear: 6xUSB, Front:2 USB, 1x PS/2 Mouse, 1x PS/2 KBD, 1xVGA & 1xRJ45
- 18.5" widescreen TFT colour monitor with maximum 0.3 mm dot pitch, TCO-03, 1366x768, 1000:1 contrast ratio, 250 cd/m2, 5ms response time,160/160 degree view angle, VGA connectivity, EMI/FCC (or ETDC Report for meeting FCC norms) compliance, Energy star compliance same brand as that of PC.
- 104 Keys OEM English Keyboard (**it must have soft keys**) , same brand as that of PC
- Optical Mouse of same brand as that of PC.
- Antivirus Software in media to take care of all and latest viruses

ATX/BTX/ MicroATX Chasis with 1 x 3.5" & 2 x 5.25" front accessible bays , 2 x3.5" internal drive bays and adequate power supply.

- Warranty: 3 years comprehensive on-site.

Manageability Features:

- Asset Management : Gives summary of computer: BIOS, Disk Drives, Installed Applications, Memory, Motherboard, Slots, Multimedia, OS Information, USB Ports, Processor, System Resources , asset tag.
- Health Monitoring: Log entry for critical changes in Drive (Space), CPU Fan (Speed), CPU voltage, CPU Temperature. Automatic shutdown can be set when CPU temperature exceeds threshold limit.

- Security : Removable media boot control , serial , parallel and USB interface control , power on and setup password. Provision for external lock and Kensington slot (Desirable) .
- Remote Management : Remote shutdown, Reboot

Certifications :

- Designed for Windows XP/Vista Business.
- Linux Ready, Novell Client
- Energy Star 5.0
- UL, FCC (EMI EMC) certified
- PCI 2.3 compliant
- ACPI 1.0 compliant
- ISO 9001: 2000 certification for design, manufacturing and services.
- ISO 14001: 1996 certification for environmental standard
- IPV6 compatible

Preloaded Windows Vista Business or latest OS with recovery CD and Drivers (as a Microsoft Partner), Latest Antivirus Software with 90 days update facility

DESKTOP CONFIGURATION – (Intel Core 2 Duo)

Quantity: 250 Nos

The System with

- Motherboard either branded for OEM of the Computer Manufacturer or that of Intel
- 4 PCI Slots (including minimum 1*PCIx16 slot)
- Intel Core 2 Duo E8500 or higher Processor
- 6 MB L2 cache
- 1333 MHz FSB
- Intel G4x Series Express Chipset with ICH10 or better
- 2 GB DDR3 RAM @1066 MHz Non ECC (Expandable up to 8 GB)
- 250 GB SATA Hard Disk Drive (7200 rpm).
- 16X or higher DVD-RW
- Integrated on M/B High Definition Sound AC97/ 20-bit audio (or equivalent)
- Intel GMA 4500 Graphics Integrated
- **Integrated Serial ATA (3 Gbps) controller with 4 ports**
- Integrated on M/B 10/100/1000 Mbps Ethernet controller with full duplex & WOL support
- Ports -1x Parallel, 1xSerial, Rear: 6xUSB, Front: 2*USB, 1x PS/2 Mouse, 1x PS/2 KBD, 1xVGA & 1xRJ45
- 18.5" widescreen TFT colour monitor with maximum 0.3 mm dot pitch, TCO-03, 1366x768, 1000:1 contrast ratio, 250 cd/m2, 5ms response time,160/160 degree view angle, VGA connectivity, EMI/FCC (or ETDC Report for meeting FCC norms) compliance, Energy star compliance same brand as that of PC.
- 104 Keys OEM English Keyboard (**it must have soft keys**) , same brand as that of PC
- Optical Mouse of same brand as that of PC.
- Antivirus Software in media to take care of all and latest viruses

ATX/BTX/MicroATX Chasis with 1 x 3.5" & 2 x 5.25" front accessible bays , 2 x3.5" internal drive bays and adequate power supply

- Warranty: 3 years comprehensive on-site.

Manageability Features:

- Asset Management : Gives summary of computer: BIOS, Disk Drives, Installed Applications, Memory, Motherboard, Slots, Multimedia, OS Information, USB Ports, Processor, System Resources , asset tag.
- Health Monitoring: Log entry for critical changes in Drive (Space), CPU Fan (Speed), CPU voltage, CPU Temperature. Automatic shutdown can be set when CPU temperature exceeds threshold limit.

- Security : Removable media boot control , serial , parallel and USB interface control , power on and setup password. Provision for external lock and Kensington slot (Desirable) .
- Remote Management : Remote shutdown, Reboot

Certifications :

- Designed for Windows XP/Vista.
- Linux Ready, Novell Client
- Energy Star 5.0
- UL, FCC (EMI EMC) certified
- PCI 2.3 compliant
- ACPI 1.0 compliant
- ISO 9001: 2000 certification for design, manufacturing and services.
- ISO 14001: 1996 certification for environmental standard
- IPV6 compatible

Preloaded Windows Vista Business or latest OS with recovery CD and Drivers (as a Microsoft Partner), Latest Antivirus Software with 90 days update facility

DESKTOP CONFIGURATION – (Intel Core 2 Duo)

Quantity: 10 Nos

The System with

- Motherboard either branded for OEM of the Computer Manufacturer or that of Intel
- 4 PCI Slots (including minimum one PCIx16 slot)
- Intel Core 2 Duo E8500 or higher Processor
- 6 MB L2 cache
- 1333 MHz FSB
- Intel Q45 Series Express Chipset with VPro Technology or better
- 4 GB DDR3 RAM @1066 MHz Non ECC (Expandable up to 8 GB)
- 320 GB SATA Hard Disk Drive (7200 rpm with SMART).
- 16X or higher DVD-RW
- Integrated on M/B High Definition audio (or equivalent)
- Intel GMA4500 Graphics Integrated
- **Integrated Serial ATA (3 Gbps) controller with 4 ports**
- Integrated on M/B 10/100/1000 Mbps Ethernet controller with full duplex & WOL support
- Ports -1x Parallel, 1xSerial, Rear: 6xUSB, Front:2*USB. 1x PS/2 Mouse, 1x PS/2 KBD, 1xVGA & 1xRJ45
- 18.5" widescreen TFT colour monitor with maximum 0.3 mm dot pitch, TCO-03, 1366x768, 1000:1 contrast ratio, 250 cd/m2, 5ms response time,160/160 degree view angle, VGA connectivity, EMI/FCC (or ETDC Report for meeting FCC norms) compliance, Energy star compliance same brand as that of PC.
- 104 Keys OEM English Keyboard (**it must have soft keys**) , same brand as that of PC
- Optical Mouse of same brand as that of PC.
- Antivirus Software in media to take care of all and latest viruses

ATX/BTX/MicroATX Chassis with 1 x 3.5" & 2 x 5.25" front accessible bays , 2 x3.5" internal drive bays and adequate power supply.

- Warranty: 3 years comprehensive on-site.

Manageability Features:

- Asset Management : Gives summary of computer: BIOS, Disk Drives, Installed Applications, Memory, Motherboard, Slots, Multimedia, OS Information, USB Ports, Processor, System Resources , asset tag.
- Health Monitoring: Log entry for critical changes in Drive (Space), CPU Fan (Speed), CPU voltage, CPU Temperature. Automatic shutdown can be set when CPU temperature exceeds threshold limit.

- Security : Removable media boot control , serial , parallel and USB interface control , power on and setup password. Provision for external lock and Kensington slot (Desirable) .
- Remote Management : Remote shutdown, Reboot

Certifications :

- Designed for Windows XP/Vista.
- Linux Ready, Novell Client
- Energy Star 5.0 or higher.
- FCC (EMI EMC) certified
- PCI 2.3 compliant
- ACPI 1.0 compliant
- ISO 9001: 2000 certification for design, manufacturing and services.
- ISO 14001: 1996 certification for environmental standard
- IPV6 compatible

Preloaded Windows Vista Business or latest OS with recovery CD and Drivers (as a Microsoft Partner), Latest Antivirus Software with 90 days update facility.

Sub-CATEGORY-B 1

(This sub-category is optional with main Category-B and is not mandatory to quote by every bidder quoting for Desktops)

DESKTOP CONFIGURATION – (AMD Based)

Quantity:

The System with

- Motherboard either branded for OEM of the Computer Manufacturer or that of AMD
- 4 PCI Slots (including minimum one PCIx16 slot)
- AMD Processor Phenom II X2 545 (3.0 Ghz) or higher Processor
- 512 KB L2 cache, 6 MB Total Cache)
- AMD 780G Chipset or better chipset
- 2 GB DDR2 RAM @1066 MHz Non ECC (Expandable up to 8 GB)
- 320 GB SATA HDD (7200 rpm with SMART III).
- 16X or higher DVD-RW
- Integrated on M/B Soundmax Digital AC97/ 20-bit audio (or equivalent)
- Integrated graphics
- **Integrated Serial ATA (3 Gbps) controller with 4 ports**
- Integrated on M/B 10/100/1000 Mbps ethernet controller on board with full duplex & WOL support
- Ports -1x Parallel, 1xSerial, Rear: 6xUSB, Front:2*USB. 1x PS/2 Mouse, 1x PS/2 KBD, 1xVGA & 1xRJ45
- 18.5" widescreen TFT colour monitor with maximum 0.3 mm dot pitch, TCO-03, 1366x768, 1000:1 contrast ratio, 250 cd/m2, 5ms response time, 160/160 degree view angle, VGA connectivity, EMI/FCC (or ETDC Report for meeting FCC norms) compliance, Energy star compliance same brand as that of PC.
- 104 Keys OEM English Keyboard (**it must have soft keys**), same brand as that of PC
- Optical Mouse same brand as that of PC.
- Antivirus Software in media to take care of all and latest viruses

Small Form Factor with Chasis volume less than or equal to 14.2 ltrs, front accessible bays, 2 x3.5" internal drive bays and adequate power supply

- Warranty: 3 years comprehensive on-site.

Manageability Features:

- Asset Management : Gives summary of computer: BIOS, Disk Drives, Installed Applications, Memory, Motherboard, Slots, Multimedia, OS Information, USB Ports, Processor, System Resources , asset tag.
- Health Monitoring: Log entry for critical changes in Drive (Space), CPU Fan (Speed), CPU voltage, CPU Temperature. Automatic shutdown can be set when CPU temperature exceeds threshold limit.
- Security : Removable media boot control , serial , parallel and USB interface control , power on and setup password. Provision for external lock and Kensington slot (Desirable) .
- Remote Management : Remote shutdown, Reboot

Certifications :

- Designed for Windows XP/Vista Business.
- Linux Ready, Novell Client
- Energy Star 5.0
- FCC (EMI EMC) certified
- PCI 2.3 compliant
- ACPI 1.0 compliant
- ISO 9001: 2000 certification for design, manufacturing and services.
- ISO 14001: 1996 certification for environmental standard
- IPV6 compatible

Preloaded Windows Vista Business or latest OS with recovery CD and Drivers (as a Microsoft Partner), Latest Antivirus Software with 90 days update facility

Shared Computing:

S. No.	Item	Detailed Specifications
1.	To be configured with Desktops mentioned at A above	PCI Card to be inserted in the Desktop to connect Thin Clients/ Terminals and to share resources of Desktop
		Virtualisation software to be installed in PC to create independent user interface for each terminal/ thin client
		Client Access license, if any
		Necessary cables to connect thin client/ terminal to PC
		Thin Client/ Terminal box required at user-end with 2 PS/2, Audio-in, Audio-out, USB port
		18.5" Widescreen TFT (1366x768, 1000:1 contrast ratio, 250 cd/m ² , 5 ms response time, 160° / 160° view angle, VGA connectivity,) TCO-03 certified
		OEM Optical Mouse
		104 keys OEM English Keyboard
2.	To be configured with Desktops mentioned at A above	LAN based system to connect Thin Clients/ Terminals and to share resources of Desktop
		Virtualisation software to be installed in PC to create independent user interface for each terminal/ thin client
		Client Access license, if any
		Necessary cables to connect thin client/ terminal to PC
		Thin Client/ Terminal box required at user-end with 2 PS/2, Audio-in, Audio-out, USB port
		17" Widescreen TFT (1366x768, 1000:1 contrast ratio, 250 cd/m ² , 8 ms response time, 160° / 160° view angle, VGA connectivity,) TCO-03 certified
		OEM Optical Mouse
		104 keys OEM Keyboard
3`	THIN CLIENTS	Processor Via/Intel 1 ghz ,fan less design, main memory 512 DDR2,512Mb self powered flash memory, Internal Storage (through USB), PS2 Optical mouse,104 keys OEM Key Board,10/100 MBPS Ethernet, 1 serial 1 parallel port, 2 PS2 ,4 external USB , 2 Internal USB , 102 to 250 volts AC power supply.

*** Warranty : Three years comprehensive onsite on all the items under category B-1**

3.

CATEGORY-C

WORKSTATION

Quantity:

(i) The System with

- Motherboard either branded for OEM of the Computer Manufacturer or that of Intel
- 4 PCI Slots (including minimum one PCIx16 slot)
- Intel Xeon W3503 (2.4 Ghz) or higher Processor .
- 4 MB L2 cache
- Upto 4.8/5.86 GT/s MHz FSB
- Intel X58 Chipset or better
- 4 GB DDR3 ECC RAM @1066 Mhz (Expandable up to 16 GB)
- 300 GB SATA Hard Disk Drive (10 k rpm with SMART).
- 16X or higher DVD-RW
- **Integrated 6 channel Serial ATA (3 Gbps) controller with RAID 0,1,5,10 capable,** Optional 4-channel SAS controller, RAID 0,1,10 capable.
- Integrated on M/B High Definition Audio with min. 2 X 2 Watts (rms) Speakers
- 512 MB NVidia Quadro FX380/580 or equivalent or better Graphics card with dual monitor + DVI capable
- Integrated on M/B 10/100/1000 Mbps ethernet controller with full duplex & WOL support
- **Ports** - Rear: 6xUSB 2.0, Front:2*USB 2.0, 1 audio out, 1 microphone, 1xVGA & 1xRJ45
- 19" Widescreen TFT (1440x900 at 60 Hz, 800:1 contrast ratio, 300 cd/m2, 5 ms response time, 150/160 degree view angle, VGA & DVI-D connectivity) TCO-03 certified. MPR-II compliant, EMI/FCC (or ETDC Report for meeting FCC norms) compliance , asset controlled, energy star compliance)
- **Bays/Slots: 3 external, 2 internal HDD bays, 2 PCI Express Gen 2x16, 1 PCI Express Gen 2x8 mechnaical/x4 electrical, 1 PCI Express Gen1x8 mechanical/x4 electrical, 2PCI (All slots should be on mother boards without any raiser card)**
- 104 Keys OEM English Keyboard (**it must have soft keys**) , same brand as that of Workstations.
- Optical Mouse same brand as that of Workstation.
- Direct Management Interface (DMI) implementation
- Efficient Power Supply (85% or higher).

- Rack Mounting.
- Warranty: 3 years comprehensive on-site

Manageability Features:

- Asset Management : Gives summary of computer: BIOS, Disk Drives, Installed Applications, Memory, Motherboard, Slots, Multimedia, OS Information, USB Ports, Processor, System Resources , asset tag.
- Health Monitoring: Log entry for critical changes in Drive (Space), CPU Fan (Speed), CPU voltage, CPU Temperature. Automatic shutdown can be set when CPU temperature exceeds threshold limit.
- Security : Removable media boot control , serial , parallel and USB interface control , power on and setup password. Provision for external lock and Kensington slot (Desirable) .

Certifications :

- Designed for Windows XP/Vista Business .
- Linux Ready, Novell Client
- Energy Star 5.0
- FCC certification
- PCI 2.3 compliant
- ACPI 3.0a compliant
- ISO 9001: 2000 certification for design, manufacturing and services.
- ISO 14001: 1996 certification for environmental standard
- IPV6 compatible

4.

CATEGORY-D

LAPTOP CONFIGURATION – I

Quantity: 8 Nos

The System with

- Intel Core 2 Duo Processor T5870 (2.0 GHz)
- 2 MB L2 cache
- 800 MHz FSB
- Intel GM45 Express chipset
- 2 GB DDR2 SD RAM expandable to 4 GB.
- 250 GB SATA Hard Disk Drive (5400 rpm)
- Integrated 8x DVD-RW drive
- Integrated Graphics Media Accelerator X4500
- 1 express card/PCMCIA /54 mm/ 34 mm, media card reader.
- 4 USB 2.0 Ports, 1394 Firewire Port.
- 6 cell Li-Ion BATTERY WITH ADVANCE MANAGEMENT
- 10/100/1000 Mbps ethernet controller
- 56 K MODEM
- Integrated Speakers
- 14" TFT/LED display(1280x 800 or 1366x768 WXGA) with 2 mega pixel camera
- Integrated 802.11 a/b/g/n or b/g/n wireless LAN connection, Bluetooth 2.0+
- Carry case
- Preloaded Window Vista Business or latest OS.
- Energy Start 4.0 or higher
- IPV6 compatible
- 3 Years comprehensive warranty.

Preloaded Windows Vista Business or latest OS with recovery CD and Drivers (as a Microsoft Partner), Latest Antivirus Software with 90 days update facility

LAPTOP CONFIGURATION – II

Quantity: 5 Nos

The System with

- Intel Core 2 Duo Processor P7370/P8600 or higher
- 3 MB L2 cache
- 1066 MHz FSB
- Intel GM45 Express chipset
- 2 GB DDR2 SD RAM expandable to 4/8 GB.
- 320 GB SATA Hard Disk Drive (5400 rpm or higher)
- Integrated 8 x DVD-RW drive
- Integrated Graphics Media Accelerator X4500 HD Graphics
- 1 express card/54 slots, media card reader.
- 6 cell Li-Ion BATTERY WITH ADVANCE MANAGEMENT
- 10/100/1000 Mbps ethernet controller
- 56 K MODEM
- Integrated Speakers
- 4 USB 2.0 ports, 1 Firewire port
- 14" TFT/LED display(1280x 800 or 1366x768 WXGA) with 2 mega pixel camera
- Integrated 802.11 a/b/g/n or a/g/n wireless LAN connection, Bluetooth 2.0+
- Carry case
- Preloaded Genuine Window Vista Business or latest OS.
- Energy Star 4.0 or higher
- IPV6 compatible
- 3 Years comprehensive onsite warranty.

Preloaded Windows Vista Business or latest OS with recovery CD and Drivers (as a Microsoft Partner), Latest Antivirus Software with 90 days update facility.

LAPTOP CONFIGURATION – III

The System with

- Intel Core 2 Duo Processor SL9600 (2.13 GHz) /T9500 Processor 2.66 Ghz
- 6 MB L2 cache
- 1066 MHz FSB
- Intel GM45 Express chipset
- 4 GB DDR2 SD RAM expandable to 8 GB.
- 250/320 GB SATA Hard Disk Drive (5400 rpm) / 7200 rpm with FFS
- Integrated 8x DVD-RW drive
- Integrated Graphics Media Accelerator X4500
- 1 express card/54 mm/34 mm, media card reader.
- 4 cell Li-Ion Battery (option for 6 cell Battery) WITH ADVANCE MANAGEMENT
- 10/100/1000 Mbps integrated ethernet controller
- 56 K MODEM
- 3 USB Ports, 1 VGA
- Integrated Speakers
- 12 " TFT/ LED display(1280x800 WXGA)/ LED with 1.3 mega pixel or higher camera
- Integrated 802.11 a/b/g/n wireless LAN connection, Bluetooth 2.0+
- Weight less than 1.7 kg
- Carry case
- Preloaded Genuine Window Vista Business or latest OS.
- Energy Start 4.0 or higher
- IPV6 compatible
- 3 Years comprehensive onsite warranty.

Preloaded Windows Vista Business or latest OS with recovery CD and Drivers (as a Microsoft Partner), Latest Antivirus Software with 90 days update facility

LAPTOP CONFIGURATION – IV

The System with

- Intel Core 2 Duo Processor T6670
- 2 MB L2 cache
- 1066 MHz FSB
- Intel GM45 Express chipset
- 2 GB DDR2 SD RAM expandable to 8 GB.
- 250 GB SATA Hard Disk Drive (5400 rpm)
- Integrated 8x DVD-RW drive
- Integrated Graphics Media Accelerator X4500
- 1 express card, 54 mm, media card reader.
- 4 cell Li-Ion BATTERY WITH ADVANCE MANAGEMENT
- 10/100/1000 Mbps integrated ethernet controller
- 4 USB ports, Firewire Port 1394 , VGA Port
- 56 K MODEM
- Integrated Speakers
- 13.3 " TFT/LED display(1366x768) with integrated 2.0 mega pixel camera
- Integrated 802.11 a/b/g/n or a/g/n wireless LAN connection, Bluetooth 2.0+
- Weight less than 2 kg
- Carry case
- Preloaded Window Vista Business or latest OS.
- Energy Start 4.0 or higher
- IPV6 compatible
- 3 Years onsite comprehensive warranty.

Preloaded Windows Vista Business or latest OS with recovery CD and Drivers (as a Microsoft Partner), Latest Antivirus Software with 90 days update facility

NB: bidder may quote for other TFT/LED display sizes like 15.1", 15.4" or 15.6" as optional items.

5.

CATEGORY- E

**(in this category the bidder has to quote for atleast three models of printers/MFDs)
(Laserjet , DeskJet, Scanners, Plotters)**

(i) LASER PRINTER – (A4 size)

Quantity:

400 Nos

The Printer with

- Resolution 600x600 dpi or higher
- Paper Handling : A4, A5, letter, legal, executive, B5 (JIS), B5 (ISO), C5
- Media Types : Plain paper, envelopes, transparencies, card stock, postcards, labels
- Print Speed: 20 ppm
- Input and output trays: at least 100 sheets for input and output trays
- Interface: High Speed USB 2.0 port
- Memory : 2 MB or higher
- Duty Cycle : 8000 pages per month
- First page print < 10 secs.
- Drivers : Windows XP/ 2K/Vista or latest and all other OS.
- Warranty: give option for both one year and three years comprehensive on-site warranty.

LASER PRINTER – (A4 size)

(ii) The Printer with

- Resolution 600x600 dpi or higher
- Paper Handling : A4, A5, letter, legal, executive, B5 (JIS), B5 (ISO), C5
- Media Types : Plain paper, envelopes, transparencies, card stock, postcards, labels
- Print Speed: 32 ppm
- Input and output trays: at least 50 & 250 sheets for input and output trays
- Interface: High Speed USB 2.0 port, parallel port
- Memory : 32 MB
- Duty Cycle : 20000 pages per month
- Drivers : Windows XP/ 2K/Vista or latest and all other OS.
- Warranty: give option for both one year and three years comprehensive on-site warranty.

(iii) Above configuration (ii) with Network Card.

- (iv) Above configuration (ii) with Automatic Duplex
- (v) Above configuration (ii) with Network Card and Automatic Duplex

LASER PRINTERS – (A3 size)

vi Laser Printer with

Quantity:

- Resolution 600 x 600 dpi
- Paper Handling: A3, A4, letter, legal, executive, tabloid, no. 10 envelopes
- Media Types: Plain paper, envelopes, transparencies, card stock, postcards, labels, two side printing possible
- Speed: 35 ppm on A4 and 18 ppm on A3
- Input and output trays: 200 sheets for output and multiple trays for input
- Interface: Parallel/USB (necessary), IEEE 1284/ 1384 (desirable)
- Memory: 48 MB expandable upto 512 MB.
- Duty Cycle: 50,000 pages per month
- Drivers: Windows XP/Vista or latest and all other OSs
- Warranty: give option for both one year and three years comprehensive on-site warranty.

(vii) Above configuration (vi) with Network Card.

(viii) Above configuration (vi) with Automatic Duplex

(xi) Above configuration (vi) with Network Card and Automatic Duplex

COLOR LASER PRINTER – (A4 size)

Quantity:

(x) The Printer with

- Resolution 1200x1200 dpi
- Paper Handling : A4, A5, letter, legal, executive, B5 (JIS), B5 (ISO), C5
- Media Types : Plain paper, envelopes, transparencies, card stock, postcards, labels
- Print Speed: upto 12 ppm (blk), 8 ppm (col)
- Input and output trays: at least 150 sheets for input and 100 output sheet trays.
- Interface: High Speed USB 2.0 port/ parallel port
- Memory :64 MB expandable upto 256 MB
- Duty Cycle : 30000 pages per month
- USB 2.0
- Drivers: Windows XP/ 2K/Vista or latest and all other OS.
- Warranty: give option for both one year and three years comprehensive on-site warranty.

Multi Functional Printers

(xi) **LASER PRINTERS – (Multi Functional PSC A4 Size)**

- Resolution 600 x 600 dpi
- Paper Handling: A4, letter, legal, executive, tabloid, no. 10 envelopes
- Media Types: Plain paper, envelopes, transparencies, card stock, postcards, labels
- Printing Speed: 14 ppm A4 Print & Copy
- Scanning & copy flatbed
- Input and output trays: 100 sheets for output and multiple trays for input
- Interface: Parallel/ USB 2.0
- Memory: 16 MB RAM.
- Duty Cycle: 5,000 pages per month
- Drivers: Windows XP/Vista or latest and all other OSs
- Warranty: give option for both one year and three years comprehensive on-site warranty.

(xi)(a) Above (xi) with three years on site warranty.

LASER PRINTERS – (Multi Functional PSCF A4 Size)

(xii) Resolution 600 x 600 dpi

- Paper Handling: A4, letter, legal, executive, tabloid, no. 10 envelopes
- Media Types: Plain paper, envelopes, transparencies, card stock, postcards, labels.
- Printing Speed: 22 ppm A4 Print & Copy
- Scanning & copy flatbed
- ADF 25 sheets
- Input and output trays: 250 sheets for input and multiple trays for input
- Interface: Parallel/ USB 2.0
- Memory: 64 MB RAM.
- Fax Modem 33.6 Kbps
- Duty Cycle: 8,000 pages per month
- Drivers: Windows XP/Vista or latest and all other OSs
- Warranty: give option for both one year and three years comprehensive on-site warranty.

(xiii) Above (xii) with Network facility

(iv) Above (xii) with Automatic Duplex facility.

(v) Above (xii) with Network and Automatic Duplex facility.

5.

SUB CATEGORY - E-1
(in this category the bidder may or may not quote)
INKJET PRINTERS

Quantity:

(xvi) Printer

- Resolution : Up to 4800 x 1200 optimized dpi color (1200 x 1200 dpi input)
- Paper Handling : A4, letter, legal, executive, tabloid, no. 10 envelopes
- Media Types : Plain paper, envelopes, transparencies, card stock, postcards, labels
- Memory: 32 MB RAM
- Speed: 34 ppm color, 35 ppm black
- Printing: Automatic two sided
- Interface: USB 2.0
- Bluetooth(option)
- 250 sheets input tray
- Duty Cycle : 15000 pages per month
- Drivers : Windows XP/Vista or latest and all other OSs
- Warranty : one year comprehensive on-site.

(xvii) Multifunctional Inkjet Printer (PSCF)

- Resolution : Up to 4800 x 1200 optimized dpi color (1200 x 1200 dpi input)
- Scan:2400x4800 dpi
- Paper Handling : A4, letter, legal, executive, tabloid, no. 10 envelopes
- Media Types : Plain paper, envelopes, transparencies, card stock, postcards, labels
- Memory: 64 MB, 33.6 kbps fax
- Speed: 34 ppm color, 35 ppm black
- Printing: Automatic two sided
- Interface: USB 2.0
- Bluetooth(option)
- Automatic document feeder
- 802.11g wireless networking
- 250 sheets input tray
- Duty Cycle : 15000 pages per month
- Drivers : Windows XP/Vista or latest and all other OSs
- Warranty : one year comprehensive on-site.

SCANNERS

(xviii). Scanner with

- Scanner type : Flatbed scanner
- Optical Resolution : 1200 x 1200 dpi
- Bit Depth: 48 bit
- Speed : Preview in < 14 sec; OCR: in 48 sec
- Scan Size : 8.5 x 11.7 in
- Connectivity : Hi-Speed USB (compatible with USB 2.0 specifications)
- Drivers : Windows XP/Vista and all other OSs
- Warranty: One year comprehensive on-site.

Quantity: 4

(xix). Scanner with

- Scanner type : Flatbed scanner
- Optical Resolution : 4800 x 9600 dpi
- Bit Depth: 48 bit
- Speed : Preview in less than 11 sec; OCR: in 48 sec
- Scan Size : 8.5 x 11.7 in
- Facility to: Copy, Scan, Scan to E-mail, Scan to PDF)
- Connectivity : Hi-Speed USB (compatible with USB 2.0)
- Built in TP adapter
- Drivers : Windows XP/Vista and all other OSs
- Warranty: One year comprehensive on-site.

(xx) Scanner with

- Scanner type : Flatbed scanner
- Optical Resolution : 4800 x 9600 dpi
- Bit Depth: 96 bit
- Speed : Preview in less than 9 sec; OCR:
- Built in Transparent Material Adapter
- Scan Size : 8.5 x 11.7 in
- Facility to: Copy, Scan, Scan to E-mail, Scan to PDF)
- Connectivity : Hi-Speed USB (compatible with USB 2.0 specifications)
- Drivers : Windows XP/Vista and all other OSs
- Warranty: One year comprehensive on-site.

(xxi). Scanner with

Quantity: 8 Nos

- Scanner type : Flatbed scanner
- Optical Resolution : 2400 x 2400 dpi
- Bit Depth: 48 bit color; 999,999 dpi enhanced
- Speed : Preview in less than 11 sec; OCR: in 48 sec
- Scan Size : 8.5 x 11.7 in
- Automatic Document Feeder: 50 pages.
- Built in Adapter for slide & negatives.
- Facility to: Copy, Scan, Scan to E-mail, Scan to PDF)
- Connectivity : Hi-Speed USB (compatible with USB 2.0 specifications)
- Drivers : Windows XP/Vista and all other OSs
- Software: Document Management Software & OCR Software.
- Warranty: One year on-site warranty.

PLOTTERS & SCANNERS

- (xxii) **Colour Plotter with;** **1 No**
- Resolution : 2400 x 1200 dpi
 - Size: 24 inches.
 - Speed: Fast mode: 35 sec/page D/A1 size
 - Media Handling : Roll fed, Sheet fed
 - Network capable(optional)
 - Line Accuracy +/- 0.1%
 - Connectivity: Hi-speed USB 2.0 certified.
 - Drivers; For Windows XP/Vista & other OS
 - Warranty: give option for both one year and three years comprehensive on-site warranty.
- (xxiii) **Above (xii) Plotter with 42"** **1 No**
- (xxiv) **Large Format Color Scanner with;**
- Resolution : 9600 dpi enhanced, optical 500 dpi
 - Scan width: 42 inches.
 - Speed: Color: 75 mm/sec, B&W : 240 mm/sec
 - Thick Media Handling upto 15 mm
 - Reduction enlargement: 1 to 9999%
 - Processig Unit: minimum 1 GB RAM, 40 GB HDD, Intel minimum P-iV/Dual core, touch screen panel
 - Connectivity: Gigabit ethernet
 - Connectivity: Hi-speed USB 2.0 certified.
 - Warranty: give option for both one year and three years comprehensive on-site warranty.
 - Drivers; For Windows XP/Vista & other OS

6.

CATEGORY-F

(in this category the bidder shall have to quote for at least two printers)

DOT MATRIX/HSDMP/Line MATRIX PRINTERS

(i) Dot Matrix Printer with

- PINS: 24 PINS
- PRINT DIRECTION: BIDIRECTIONAL
- SPEED
 - DRAFT PRINT SPEED AT 12 CPI: 300 CPS, 10 CPI : 250 CPS
 - LQ PRINT SPEED AT 12 CPI: 90 TO 100 CPS
- PRINT SIZE: 136 CHARACTERS PER LINE AT 10 CPI
- INPUT DATA BUFFER: 64 KB (MINIMUM)
- PORT: CENTRONICS PARALLEL PORT, USB/Serial.
- COPIES: ORIGINAL + 3 COPIES
- FONTS: AT LEAST 8 with bilingual support.
- Hindi Language script support
- PAPER HANDLING: 0.06 TO 0.32 MM
- NOISE LEVEL: LESS THAN 64 db
- Emulation: ESC/P & IBM
- Drivers: Windows XP/2Vista and other OS
- EMI compliance
- Auto preventive maintenance reminder & print head status monitoring facility
- Warranty: three years comprehensive on-site including printer head.
- Duty Cycle : 6000 POH

(ii) Dot Matrix Printer with

200 Nos

- PINS: 24 PINS
- PRINT DIRECTION: BIDIRECTIONAL
- SPEED
 - DRAFT PRINT SPEED AT 12 CPI: 300 CPS, 15 cpi: 375 cps
 - LQ PRINT SPEED AT 12 CPI: 90 TO 100 CPS
- PRINT SIZE: 136 CHARACTERS PER LINE AT 10 CPI
- INPUT DATA BUFFER: 64 KB (MINIMUM)
- PORT: CENTRONICS PARALLEL PORT, USB 2.0 / Serial
- COPIES: ORIGINAL + 3 COPIES
- FONTS: AT LEAST 8 with bilingual support.
- PAPER HANDLING: 0.06 mm to 0.32 mm
- Auto preventive maintenance reminder & print head status monitoring facility

- NOISE LEVEL: LESS THAN 62 db
- Drivers: Windows XP/2Vista and other OS
- EMI compliance
- Duty Cycle: 10000 POH
- Warranty: three years on-site including printer head.

(iii) Dot Matrix Printer with

- PINS: 24 PINS
- PRINT DIRECTION: BIDIRECTIONAL
- SPEED
 - DRAFT PRINT SPEED AT 12 CPI: 450 CPS
 - LQ PRINT SPEED AT 10 CPI: 90 TO 100 CPS
- PRINT SIZE: 136 CHARACTERS PER LINE AT 10 CPI
- INPUT DATA BUFFER: 64 KB (MINIMUM)
- PORT: CENTRONICS PARALLEL PORT, USB 2.0/ Serial
- COPIES: ORIGINAL + 5 COPIES
- FONTS: AT LEAST 8 with bilingual support.
- PAPER HANDLING: 0.06 mm to 0.42 mm
- NOISE LEVEL: LESS THAN 62 Db
- Drivers: Windows XP/2Vista and other OS
- EMI compliance
- Auto preventive maintenance reminder & print head status monitoring facility
- Duty Cycle: 10000 POH
- Warranty: three years comprehensive on-site including printer head.

(iv) High Speed Dot Matrix Printer with

- PINS: 24 PINS
- PRINT DIRECTION: BIDIRECTIONAL
- SPEED
 - PRINT SPEED AT 10 CPI: 500 CPS
 - LQ PRINT SPEED AT 10 CPI: 100 CPS
- PRINT SIZE: 136 CHARACTERS PER LINE AT 10 CPI
- English & DevNagari script support
- INPUT DATA BUFFER: 64 KB (MINIMUM)
- PORT: CENTRONICS PARALLEL & Serial PORT
- COPIES: ORIGINAL + 3 COPIES
- Bar Code facility
- PAPER HANDLING: 60 TO 120 gsm

- NOISE LEVEL: LESS THAN 58 db
- MTFB 10,000 hours Auto preventive maintenance reminder & print head status monitoring facility
- Drivers: Windows XP/2Vista/Windows 2005/8 and other OS
- Warranty: comprehensive on-site :one year and three years option

(v) High Speed Dot Matrix Printer with

- PINS: 24 PINS
- PRINT DIRECTION: BIDIRECTIONAL
- SPEED
 - DRAFT PRINT SPEED AT 12 CPI: 840 CPS
 - LQ PRINT SPEED AT 10 CPI: 120 TO 180 CPS
- PRINT SIZE: 136 CHARACTERS PER LINE AT 10 CPI
- INPUT DATA BUFFER: 64 KB (MINIMUM)
- PORT: CENTRONICS PARALLEL PORT/ USB
- COPIES: ORIGINAL + 3 COPIES
- FONTS: AT LEAST 8 with bilingual support.
- Bar Code facility
- PAPER HANDLING: 0.06 TO 0.32 MM
- NOISE LEVEL: LESS THAN 62 Db
- Auto preventive maintenance reminder & print head status monitoring facility
- Drivers: Windows XP/2Vista/Windows 2005/2008 and other OS
- Warranty: comprehensive on-site one year and three years option

(vi) Pass Book Printer:

5 Nos

- PINS: 24 PINS, Flatbed
- PRINTING: Serial, bidirectional.
- SPEED
 - DRAFT PRINT SPEED AT 10 CPI: 300 CPS
 - LQ PRINT SPEED AT 12 CPI: 90 TO 100 CPS
- INPUT DATA BUFFER: 8 KB (MINIMUM)
- PORT: CENTRONICS PARALLEL PORT/ Serial, USB
- COPIES: ORIGINAL + 3 COPIES
- FONTS: AT LEAST 8 with bilingual support.
- PAPER HANDLING: Longitudinal & Horizontal fold upto 1.7 mm
- NOISE LEVEL: LESS THAN 59 Db operational
- Drivers: Windows XP/2Vista and other OS
- Warranty: One years comprehensive including printer head.
- **with three years comprehensive on-site warranty.**

(vii) Line Matrix Printer:

- PRINTING Method: Impact Line Matrix.
- SPEED
 - High PRINT SPEED(upper case/lower case) 500/425 LPM
 - Data Processing : 375/300 upper/lower case
 - Bi-Lingual (Devnagari) printing capability
- INPUT DATA BUFFER: 8 KB (MINIMUM)
- PORT: CENTRONICS PARALLEL PORT
- COPIES: ORIGINAL + 3 COPIES
- FONTS: AT LEAST 8 with bilingual support.
- PAPER HANDLING: 136 column continuous
- NOISE LEVEL: LESS THAN 64 Db operational
- Energy Star compliance
- Drivers: Windows XP/2Vista/Windows Server 2008/Linux and other OS
- Warranty: three years comprehensive on-site .

(viii) Line Matrix Printer:

Quantity: 2 Nos

- PRINTING Method: Impact Line Matrix.
- SPEED
 - High PRINT SPEED(upper case/lower case) LPM 1500/1225
 - Bi-Lingual printing capability
- INPUT DATA BUFFER: 8 KB (MINIMUM)
- PORT: CENTRONICS PARALLEL PORT
- COPIES: ORIGINAL + 3 COPIES
- FONTS: AT LEAST 8 with bilingual support.
- PAPER HANDLING: 136 column continuous, fan folded, edge perforation
- NOISE LEVEL: LESS THAN or equal to 68 Db operational
- Energy Star compliance
- Drivers: Windows XP/2Vista/Windows Server 2008/Linux and other OS
- Warranty: Three years comprehensive on-site .

7.

CATEGORY-G (SOFTWARES)

S.No.	ITEM NAME	Quantity
1.	Windows Server 2008 Standard Edition	15
2.	SQL Server 2008 (Latest version) std edition	12
3.	Windows SBS 2008 Premium edition MOLP with 5 users cal	12
4.	Linux Enterprise Edition (latest version)	
5.	Additional 5 user CAL license for Windows Server, SQL, SBS	70
6.	MS Office 2007 MOLP	850
7.	AutoCAD 2009	
8.	STADD PRO (latest version)	
9.	Visual Studio Professional 2008	
10.	ANTI VIRUS with three year free update and upgrade facility of MacAfee/ Symantec/ Quick heal/ Trend Micro 1. With original media. 2. With replicated media	1200 units

11.	Genuine Media for Software	
12.	Adobe Page Maker 7.02 or higher with media.	
13.	Corel Draw Graphics Suit X4 with media	
14.	Crystal Report 2008 with media.	
15.	Adobe Photoshop CS4 11 with media	
16.	MS Windows XPP /Vista with media.	
17.	MS Windows 7 Prof with media	
18.	MS Windows 7 Ultimate with media	
19.	MS Windows 7 Home Premium with media	

*Quote for academic versions of the software where ever available.

** Bidder quoting for Microsoft products may or may not quote for other software items.

8.

CATEGORY- H (Off-Line UPS)

(Atleast 2 models have to be quoted under this category)

NB: For Category H & I , bidders must segregate the prices of UPS & batteries and give total price of UPS including batteries in price bid Schedule-I.

UPS – (Off-Line/ Line Interactive)

Quantity: 40

(i) OFF LINE UPS with:

- Capacity 600VA
- Microprocessor based controller
- Rated Output Voltage 230 V(1-Phase)
- Rated Output Current 2.8 A at 0.8 p.f.
- Input Voltage Range 160-270 VAC
- Input Frequency Range 50 Hz \pm 6%
- Waveform quasi sinewave
- Power Factor 0.60 lag to 0.8
- Output Frequency regulation (inverter mode)
Frequency regulation in Inverter Mode 50Hz \pm 0.5%
- Overall Efficiency >85%
- Inverter Efficiency > 75%
- Cold Start Feature
- Charger capacity min. 1 amp
- Overload Capacity 110% for 10 minutes, 125% for 1 minute
- Protection on short circuit, overload and EMI filter
- Batteries SMF (VRLA) Type of reliable brand like Panasonic, Hitachi, Exide, Amar Raja with Min VAH : 84 VAH
- Quality Standards
- ISO-9001-2000 Certified Safety Standards and EMC Standards as per IEC standards
- The following formula will be used for calculating the VAH of batteries that is required.
- Interface RS 232/DB 9 port.
- Warranty: Two years on UPS and 12 months on SMF battery.

Note : Attach attested /certified copies of ISO9001 – 2000 certificates and test certificates regarding conformities to specifications from recognised test laboratories such as ERTL , ETDC etc.

(ii) OFF LINE UPS with:

800 Nos

- Capacity 650VA
- Microprocessor based controller
- Rated Output Voltage 230 V(1-Phase)
- Rated Output Current 2.8 A at 0.8 p.f.
- Input Voltage Range 160-270 VAC
- Input Frequency Range 50 Hz \pm 6%
- Waveform quasi sinewave
- Power Factor 0.60 lag to 0.8
- Output Frequency regulation (inverter mode)
Frequency regulation in Inverter Mode 50Hz \pm 0.5%
- Overall Efficiency >85%
- Inverter Efficiency > 75%
- Cold Start Feature
- Charger capacity min. 1 amp
- Overload Capacity 110% for 10 minutes, 125% for 1 minute
- Protection on short circuit, overload and EMI filter
- Batteries SMF (VRLA) Type of reliable brand like Panasonic, Hitachi, Exide or Amar Raja. Min VAH : 168 VAH
- Quality Standards
- ISO-9001-2000 Certified Safety Standards and EMC Standards as per IEC standards
- The following formula will be used for calculating the VAH of batteries that is required.
- Interface RS 232/ DB 2 port
- Warranty: Three years comprehensive onsite on UPS and 12 months on SMF battery.

Note : Attach attested /certified copies of ISO9001 – 2000 certificates and test certificates regarding conformities to specifications from recognised test laboratories such as ERTL , ETDC etc.

(iii) OFF LINE UPS with:

70 Nos

- Capacity 800 VA
- Microprocessor based controller
- Rated Output Voltage 230 V(1-Phase)
- Rated Output Current 2.8 A at 0.8 p.f.
- Input Voltage Range 160-270 VAC
- Input Frequency Range 50 Hz \pm 6%
- Waveform quasi sinewave
- Power Factor 0.60 lag to 0.8
- Output Frequency regulation (inverter mode)
Frequency regulation in Inverter Mode 50Hz \pm 0.5%
- Overall Efficiency >85%
- Inverter Efficiency > 75%
- Cold Start Feature
- Charger capacity min. 1 amp
- Overload Capacity 110% for 10 minutes, 125% for 1 minute
- Protection on short circuit, overload and EMI filter
- Batteries SMF (VRLA) Type of reliable brand like Panasonic, Hitachi, Exide or Amar Raja. Min VAH : 168 VAH
- Quality Standards
- ISO-9001-2000 Certified Safety Standards and EMC Standards as per IEC standards
- The following formula will be used for calculating the VAH of batteries that is required.
- Interface RS 232/ DB 2 port
- Warranty: Three years comprehensive on-site on UPS and 12 months on SMF battery.

Note : Attach attested /certified copies of ISO9001 – 2000 certificates and test certificates regarding conformities to specifications from recognised test laboratories such as ERTL , ETDC etc.

(iv) OFFLINE UPS with:

Qty; 10 Nos

- Capacity 1000 VA
- Inverter Device IGBT based
- Rated Output Voltage 230 V(1-Phase)
- Rated Output Current 4.0 A at 0.8 p.f.
- Input Voltage Range 160-270 VAC
- Input Frequency Range 50 Hz \pm 6%
- Waveform quasi sinewave
- Power Factor 0.65 lag to 0.8
- Output Frequency regulation (inverter mode)
Frequency regulation in Inverter Mode 50Hz \pm 0.5%
- Overall Efficiency >85%
- Inverter Efficiency > 75%
- Cold Start Feature
- Charger capacity min. 2 amp
- Overload Capacity 110% for 10 minutes, 125% for 1 minute
- Protection on short circuit, overload and EMI filter
- Batteries SMF (VRLA) Type of reliable brand like Panasonic, Hitachi, Exide, Amar Raja to provide 50-60 minutes backup(on single PC) Min VAH : 336 VAH
- Quality Standards: ISO-9001-2000 Certified Safety Standards and EMC Standards as per IEC standards
- Interface RS 232 port/ DB9 Port
- Warranty: Three years on-site on UPS and 12 months on SMF batteries.

Note : Attach attested /certified copies of ISO9001 – 2000 certificates and test certificates regarding conformities to specifications from recognised test laboratories such as ERTL , ETDC etc.

9. CATEGORY-I (ON-Line UPS)

NB: For Category H & I , bidders must segregate the prices of UPS & batteries and give total price of UPS including batteries in price bid Schedule-I.

(i) ON-LINE UPS with:

True On-Line UPS with double conversion technology

Capacity 1 KVA/ 800 W

- Rectified & Inverter Device IGBT based
- DG Set compatibility
- Rated Output Voltage 230 V(1-Phase)
- Rated Output Current 3.6A at 0.8 p.f.
- Input Voltage Range 160-270 VAC
- Input Frequency Range 50 Hz \pm 6%
- Input Current THD < 15%
- THD Output <5% for non-linear loads and < 2% for linear loads.
- Voltage Regulation (Mains Mode) 230 V \pm 1%
- Waveform pure sinewave
- Input Power Factor 0.95 lag to unity
- Lcd display for ups status, load label, battery level, in/out voltage & fault condition
- Output Frequency regulation
 - Free running Mode 50Hz \pm 0.5%
 - Sync Mode 50Hz \pm 2Hz
- Crest factor for loads 3:1
- Overall Efficiency >88%
- Inverter Efficiency > 90%
- Cold Start Feature
- Charger Type CVCC SMPS based
- Overload Capacity 110% for 10 min 125% for 1 min
- Batteries SMF (VRLA) Type of reliable brand like Panasonic, Hitachi, Exide, Amar Raja with **Min VAH : 1512 VAH**

- Quality Standards: ISO-9001-2000/ISO 14001 Certified Safety Standards and EMC Standards as per IEC standards.
- Software Interface RS 232 port /USB/ DB – 9 port : SNMP Compatible must support windows/linux/Novell/free BSD.
- Warranty: Three years comprehensive On-site on UPS and 12 months on SMF battery.

Note: Attach attested /certified copies of ISO9001 – 2000/ ISO 14001 certificates and test certificates regarding conformities to specifications from recognised test laboratories such as ERTL, ETDC

(ii) ONLINE UPS with:

True On-Line UPS with double conversion technology

Capacity 2 KVA/ 1600 W

- Rectified & Inverter Device IGBT based
- DG Set compatibility
- Rated Output Voltage 230 V(1-Phase)
- **Rated Output Current 6.9 A at 0.8 p.f.**
- Input Voltage Range 160-270 VAC
- Input Frequency Range 50 Hz \pm 6%
- Input Current THD < 15%
- THD Output < 5% for non-linear loads and < 2% for linear loads.
- Voltage Regulation (Mains Mode) 230 V \pm 1%
- Waveform pure sinewave
- Input Power Factor 0.95 lag to unity
- **LCD display for ups status, load label, battery label, input/output voltage & fault condition**
- Output Frequency regulation Free running Mode 50Hz \pm 0.5%
Sync Mode 50Hz \pm 2Hz
- Crest factor for loads 3:1
- Overall Efficiency >88%
- Inverter Efficiency > 90%
- Cold Start Feature
- Charger Type CVCC SMPS based
- Overload Capacity 110% for 10 min 125% for 1 min
- Batteries SMF (VRLA) Type of reliable brand like Panasonic, Hitachi, Exide or Amar Raja with **Min VAH : 3024 VAH**
- Quality Standards: ISO-9001-2000/14001 Certified Safety Standards and EMC Standards as per IEC standards.
- Software option / Interface RS 232 port /USB/ DB – 9 port : SNMP Compatible must support windows/linux/Novell/free BSD.
- Warranty: Three years comprehensive onsite and 12 months on SMF battery.

Note: Attach attested /certified copies of ISO9001 – 2000/ISO 14001 certificates and test certificates regarding conformities to specifications from recognised test laboratories such as ERTL, ETDC

(iii) ONLINE UPS with:

True On-Line UPS with double conversion technology

Capacity 3 KVA/ 2400 W

- Rectified & Inverter Device IGBT based
- DG Set compatibility
- Rated Output Voltage 230 V(1-Phase)
- **Rated Output Current 10.04A at 0.8 p.f.**
- Input Voltage Range 160-270 VAC
- Input Frequency Range 50 Hz \pm 6%
- Input Current THD < 15%
- THD Output <5% for non-linear loads and < 2% for linear loads.
- Voltage Regulation (Mains Mode) 230 V \pm 1%
- Waveform pure sinewave
- Input Power Factor 0.95 lag to unity
- **LCD display for ups status, load label, battery label, input/output voltage & fault condition**
- Output Frequency regulation Free running Mode 50Hz \pm 0.5%
Sync Mode 50Hz \pm 2Hz
- Crest factor for loads 3:1
- Overall Efficiency >88%
- Inverter Efficiency > 90%
- Cold Start Feature
- Charger Type CVCC SMPS based
- Overload Capacity 110% for 10 min 125% for 1 min
- Batteries SMF (VRLA) Type of reliable brand like Panasonic, Hitachi, Exide , Amar Raja with **Min VAH : 4800 VAH**
- Quality Standards: ISO-9001-2000/ISO 14001 Certified Safety Standards and EMC Standards as per IEC standards.
- Software option / Interface RS 232 port /USB/ DB – 9 port : SNMP Compatible must support windows/linux/Novell/free BSD.
- Warranty: Three years comprehensive on-site and 12 months on SMF battery.

Note: Attach attested /certified copies of ISO9001 – 2000/ISO 14001 certificates and test certificates regarding conformities to specifications from recognised test laboratories such as ERTL, ETDC

(iv) ON-LINE UPS with:

True On-Line UPS with double conversion technology

- **Capacity 5KVA/4000 W**
- Inverter Device IGBT based
- Built in double wound output isolation transformer
- DG Set compatibility
- Rated Output Voltage 230 V(1-Phase)
- **Rated Output Current 17.3 A at 0.8 p.f.**
- Switching Frequency >15KHz
- Input Voltage Range 160-270 VAC
- Input Frequency Range 50 Hz \pm 6%
- Input Current THD < 15%
- THD Output <5% for non-linear loads and < 2% for linear loads.
- No. of phases 1-Phase
- Voltage Regulation (Mains Mode) 230 V \pm 1%
- Waveform pure sinewave
- Icd display for ups status, load label, battery label, input/output voltage & fault condition
- Input Power Factor 0.95 lag to unity
- Output Frequency regulation
 - (i) Free running Mode 50Hz \pm 0.5%
 - (ii) Sync Mode 50Hz \pm 2Hz
- Crest factor for loads 3:1
- Overall Efficiency >88%
- Inverter Efficiency > 90%
- Cold Start Feature
- Charger Type CVCC SMPS based
- Overload Capacity 110% for 10 min 125% for 1 min
- Batteries SMF (VRLA) Type of reliable brand like Panasonic, Hitachi, Exide , Amar Raja with **Min VAH : 7650 VAH**
- Quality Standards: ISO-9001-2000 / ISO 14001 Certified Safety Standards and EMC Standards as per IEC standards
- Software option / Interface RS 232 port / DB – 9 port : SNMP Compatible
- Warranty: Three years on UPS and 12 months on SMF battery.

Note: Attach attested /certified copies of ISO9001 – 2000/ISO 14001 certificates and test certificates regarding conformities to specifications from recognised test laboratories such as ERTL, ETDC etc.

(v) ONLINE UPS with:

True On-Line UPS with double conversion technology

▪ **Capacity 10 KVA/ 8000 W single phase input/output**

Inverter Device IGBT based

- DG Set compatibility
- Built in double wound output isolation transformer
- Rated Output Voltage 230 V(1-Phase)
- Rated Output Current 30.4 A at 0.8 p.f.
- Input Voltage Range 160-270 VAC
- Input Frequency Range 50 Hz \pm 6%
- Input Current THD < 5%
- THD Output <3% for non-linear loads and < 2% for linear loads.
- No. of phases 1-Phase
- Voltage Regulation (Mains Mode) 230 V \pm 1%
- Waveform pure sine wave Input Power Factor 0.95 lag to unity
- Output Frequency regulation

(iii) Free running Mode 50Hz \pm 0.5%

(iv) Sync Mode 50Hz \pm 2Hz

- Crest factor for loads 3:1
- Overall Efficiency >88%
- Inverter Efficiency > 90%
- Cold Start Feature
- Charger Type CVCC SMPS based
- Overload Capacity 110% for 10 min 125% for 1 min
- Batteries SMF (VRLA) Type of reliable brand like Panasonic, Hitachi, Exide , Amar Raja with **Min VAH : mini 16000 VAH**
- Quality Standards: ISO-9001-2000/ISO 14001 Certified Safety Standards and EMC Standards as per IEC standards
- Software option / Interface RS 232 port / DB – 9 port : SNMP Compatible
- Warranty: Three years comprehensive on-site on UPS and 12 months on SMF battery.

Note: Attach attested /certified copies of ISO9001 – 2000/ISO 14001 certificates and test certificates regarding conformities to specifications from recognised test laboratories such as ERTL, ETDC etc.

(vi) True On-Line UPS with double conversion technology based on Digital Signal Processor.

- **Capacity 10 KVA/8000 W (3 phase input/ single phase output Inverter & rectifier Device IGBT based**
- DG Set compatibility
- Rated Output Voltage 230 V +- 1% (1-Phase)
- Rated Output Current 34.7 A at 0.8 p.f.
- Built in double wound output isolation transformer
- Input Voltage Range 295-510 VAC (3 phase)
- Input Frequency Range 50 Hz ± 10%
- **Input Current THD < 5%**
- **THD Output <3% for non-linear loads and < 2% for linear loads.**
- Waveform pure sinewave
- **LCD display for ups status, load label, battery label, input/output voltage & fault diagnostic events logging in lcd display.**
- Input Power Factor 0.95 lag to unity
- Output Frequency regulation
 - (v) Free running Mode 50Hz ± 0.5%
 - (vi) Sync Mode 50Hz ± 2Hz
- Crest factor for loads 3:1
- Overall Efficiency > 88%
- Inverter Efficiency > 90%
- Cold Start Feature
- Charger Type CVCC SMPS based
- Overload Capacity 110% for 10 min 125% for 1 minute
- Batteries SMF (VRLA) Type of reliable brand like Panasonic, Hitachi, Exide , Amar Raja with **Min VAH : 16000 VAH**
- Quality Standards: ISO-9001-2000 Certified Safety Standards and EMC Standards as per IEC standards
- Software option / Interface RS 232 port / DB – 9 port : SNMP Compatible
- Warranty: Three years comprehensive on-site on UPS and 12 months on SMF battery.

Note: Attach attested /certified copies of ISO9001 – 2000/ISO 14001 certificates and test certificates regarding conformities to specifications from recognised test laboratories such as ERTL, ETDC etc.

(vii) True On-Line UPS with double conversion technology based on Digital Signal Processor.

- **Capacity 20 KVA/16000 W (3 phase input/ single phase output Inverter & rectifier Device IGBT based**
- DG Set compatibility
- Rated Output Voltage 230 V +- 1% (1-Phase)
- Rated Output Current 69.5 A at 0.8 p.f.
- Built in double wound output isolation transformer
- Input Voltage Range 295-510 VAC (3 phase)
- Input Frequency Range 50 Hz ± 10%
- **Input Current THD < 5%**
- **THD Output <3% for non-linear loads and < 2% for linear loads.**
- Waveform pure sinewave
- **LCD display for ups status, load label, battery label, input/output voltage & fault diagnostic events logging in lcd display.**
- Input Power Factor 0.95 lag to unity
- Output Frequency regulation
 - Free running Mode 50Hz ± 0.5%
 - Sync Mode 50Hz ± 2Hz
- Crest factor for loads 3:1
- Overall Efficiency > 88%
- Inverter Efficiency > 90%
- Cold Start Feature
- Charger Type CVCC SMPS based
- Overload Capacity 110% for 10 min, 125% for 1 minute
- Batteries SMF (VRLA) Type of reliable brand like Panasonic, Hitachi, Exide , Amar Raja with **Min VAH : 31000 VAH**
- Quality Standards: ISO-9001-2000 Certified Safety Standards and EMC Standards as per IEC standards
- Software option / Interface RS 232 port / DB – 9 port : SNMP Compatible
- Warranty: Three years comprehensive onsite on UPS and 12 months on SMF battery.

Note: Attach attested /certified copies of ISO9001 – 2000/ISO 14001 certificates and test certificates regarding conformities to specifications from recognised test laboratories such as ERTL, ETDC etc.

10.

CATEGORY- J

NETWORKING EQUIPMENTS

Unmanaged 10/100 Switches	
1.	8 Port 10/100M Unmanaged Standalone Switch
2.	16 Port 10/100M Unmanaged Standalone Switch
3.	24 Port 10/100M Unmanaged Standalone Switch
4.	8 Port 10/100 Unmanaged Switch with 4 POE
Unmanaged Gigabit Switches	
5.	8-port 1000Base-T unmanaged Switch
6.	16-port 10/100/1000 Base-T unmanaged Switch
7.	24-Port 10/100/1000 Base-T unmanaged switch
Managed 10/100M Layer-2 switches	
8.	8-Port 10/100Mbps N-way Fast Ethernet Managed Switch with one 1000Base-T & one SFP
9.	24-port 10/100 Mbps + 2 Combo 1000 Base-T/SFP Layer 2 Managed Switch
Wireless	
10.	2.4 GHz Wireless Access Point
11.	802.11g indoor wireless access point + POE
12.	UTP Copper Cat-6 cable per metre rate
13.	6U rack, 9U rack
14.	Face Plate
15.	Information Outlets(jacks)
16.	UTP patch Cord
17.	UTP patch panel

Certifications: ISO 9001, ISO 14001, FCC-class A, CSA. RoHS Comply, Energy efficient.

11.

CATEGORY-K

TOUCH SCREEN AND KIOSK

1. 17"/19"/22" Capacitive Touch Screen for LCD/TFT display (internal fitting) with life of more than 225 million touches having anti microbial coating, glass overcoat and capacity to withstand dust, grease, moisture, liquids etc./operating temperature -10% to 50 deg C, (including all drivers for Windows XP, Linux and other Operating Systems), accuracy within 1% of true position, upto 91.5% +/- 1.5% light transmission , Activation with bare finger, NEMA sealable, meet the UL 1950 steel ball test

2. Fibre/ Metal Touch Screen Kiosk for 17 "/19"/22" LCD/TFT display with cooling fan, lockable doors, sliding drawers, power distribution, sufficient space for all the components to fit etc. (give prices for different designs and materials)

12.

CATEGORY-L**ADD-ONS**

S.No.	ITEM NAME
1.	Additional 2 GB DDR3 RAM@1066 GHz with ECC for Server.
2.	Additional 2 GB DDR2 RAM@800 MHz
3.	1 GB DDR3 RAM @800 Mhz Non ECC
4.	1 GB DDR3 RAM @1066 MHz Non ECC
5.	2 GB DDR3 RAM @800 MHz Non ECC
6.	2 GB DDR3 RAM @1066 Mhz Non ECC
7.	300 GB SAS Hot Pluggable Hard Disk(15k rpm)
8.	300 GB SAS Non hot pluggable HDD (15k rpm)
9.	250 GB SATA HDD (7200 rpm)
10.	160 GB SATA HDD (7200 rpm)
11.	PCI bus based Internal 56 Kbps, V.90 dialup/Fax modem data card with V.42/MNP 2-4 error correction. V.42 bis/MNP5 data compression & V.17 class and 2.0 group III fax.
12.	16x or higher speed DVD-ROM drive
13.	DVD-ROM / CD Writer Combo Drive
14.	16x DVD-RW
15.	Head Phones to use with Multimedia Kit
16.	2x2 watts rms OEM speakers for Desktop PCs
17.	OEM Optical Mouse with Scroll Button

18.	OEM mouse with Scroll Button
19.	19" TFT LCD Flat Monitor 1440 x 900 resolution in lieu of 18.5" TFT
20.	22" TFT LCD Flat Monitor 1280 x 1024 resolution in lieu of 18.5" TFT Monitor
21.	Windows Vista Home ILO Windows Vista Business.
22.	Windows Vista Business ILO Linux/DOS
23.	4 Ports SAS 3.0 Gbps RAID controller with 256 MB battery backed cache & hot plug HDD.
24.	Rack Mouting kit for Server Category A(i) & A(ii).

SCHEDULE IV

A) SERVERS FACT SHEETS

(SAMPLE) *Other Fact Sheets will be available on our web site
www.hpsedc.com by 15.11.09

A.1 SERVER CONFIGURATION - I

1.1 GENERAL INFORMATION

- a) Model Number Offered:
- b) Readiness to support system software:
- c) Warranty Period:
- d) Maximum time to attend a breakdown :

1.2 SPECIFIC INFORMATION

S. NO.	COMPONENT / FEATURE	SPECIFICATION REQUIRED	OFFERED	MAKE / MODEL
1.	MOTHER BOARD	Either OEM of the Computer Manufactures or that of Inlet with Intel validated/ certified chassis (in case of the OEM Motherboard also, same standards of Chassis should be followed)		
2.	CPU	INTEL XEON Quad Core L5520 Processor		
		FSB 1033 MHz		
3.	CACHE MEMORY	8 MB L3 Cache		
4.	ARCHITECTURE	INTEL 5500 Series or Equivalent / better Server Chipset		
5.	MEMORY	8GB DDR3 (800 MHz) with ECC expandable upto 32 GB		

6.	SLOTS	5 PCI slots [64 bit (100 & 133 MHz.) with PCI-X 1.0 support, 32bit]		
7.	SCSI CONTROLLER	Integrated on M/B Ultra 320 (320 MBPS) SCSI controller or Ultra3 (160 MBPS) SCSI controller Single channel Ultra320 SCSI RAID5 controller with atleast 128 MB Cache		
8.	ETHERNET CARD	Dual Ethernet controller (10/100/1000 Mbps) with full duplex		
9.	GRAPHICS CONTROLLER	8MB Display Memory		
10.	DMA/ SATA	Integrated Ultra DMA and 2 SATA Ports		
11.	HARD-DISK	3 X 300 GB SAS HOT PLUGGABLE (15K rpm with RAID5 implementation)		
12.	DVD RW	24X or Higher DVD Writer		
13.	NUMBER OF PROCESSORS	1/2		
14.	SERIAL/ PARALLEL PORTS	One Serial, One Parallel		
15.	USB PORTS	2		
16.	PS/2 PORTS	MOUSE & KEYBOARD PORTS		
17.	BAYS	1x3.5" External, 3x5.25" External, 6x3.5" (Hot Swap) Internal		

18.	MONITOR	18.5" TFT COLOUR MONITOR ----- ii) NON INTERLACED 72 Hz and 16 Million colours ----- ----- iii) mm dot pitch ----- iv) ANTI GLARE & ANTI STATIC TREATMENT ----- ----- vi) PLUG AND PLAY READY ----- ----- vii) MPR II/ EMI/FCC COMPLIANCE (or ETDC Report for meeting FCC norms), ENERGY STAR COMPLIANCE ----- ----- viii) Same brand as that of PC		
19.	KEYBOARDS	104 KEYS OEM KEYBOARD (it must have soft keys and same brand as that of PC)		
20.	MOUSE	Optical Mouse with PAD (it must have same brand as that of PC)		

21.	BUNDLED SYSTEM SOFTWARE	System configuration and management tools, OS installation and configuration utility, System Information Utility software, Driver Software for all the adapters and all the related manuals		
22.	SERVER MANAGEMENT SOFTWARE (OEM or INTEL)	Remote management of the server over LAN Remote power soft shutdown if the OS is up and running Integrated management log Server health logging Failure detection for voltage variation Thermal OS watchdog, fan failed, drive failed etc. CPU heat sink fan check		
23.	CERTIFICATIONS	FCC (EMI EMC/ ETDC) certified, ISO 9001: ISO 14001, PCI 2.2 Compliant, ACPI 2.0 compliant		
24.	OS CERTIFICATIONS	Windows Server 2008 and Linux Enterprise Edition		
25.	SERVER CHASSIS	Intel certified (or Equivalent as above) with Hot Swap Redundant Power Supply, 2-rpm monitor able fans and front Bezel key lock		
26.	ANTIVIRUS	LATEST ANTIVIRUS (McAfee or Norton) WITH THREE YEARS UPDATE/ Upgrade FACILITY		
27.	SYSTEM MANAGEMENT PROCESSOR	Integrated (Support Remote Supervisor Adapter)		

28.	ADVANCED SECURITY FEATURES	I/O PORT SECURITY LOCK, DEVICE LOCK FEATURE FOR DENYING ACCESS TO USB STORAGE DEVICE, FLOPPY MEDIA, CD MEDIA AND HARD DISK LOGICAL DRIVE.		
29.	OTHERS	USER MANUAL DUST COVER		

32.	ADDITIONAL/ EXTRA FEATURES OFFERED IF ANY	TECHNICAL ADVANTAGES