

Annexure 07: Technical Specifications of Infrastructure and Furniture at Police Stations and Higher Offices

i. Personal Computer for each location:

Personal Computers	
Features	Specifications
Processor	Processor: Intel Core i5-650 processor (3.20 GHz)
Chipset	Intel Q57 Express Chipset or higher of Intel or its equivalent
Motherboard	OEM Motherboard
Cache	6 MB
RAM	4 GB DDR3 PC3-6400 (1066-MHz) or higher
Hard Disk Drive	Internal Hard Disk/Speed: 320 GB SATA (7200 RPM) or higher
Optical Drive	Serial Advanced Technology Attachment (SATA) Super Multi Light Scribe DVD Writer Drive
Graphics	Intel Graphics Media Accelerator 4500 integrated graphics
Audio	High Definition Audio Card
Ethernet	Integrated Intel 82566DM Gigabit Network Connection 10/100/1000
Bays	External: Two 5.25" Drive Bays, One 3.5" Drive bay. Internal: Two 3.5" drive bay.
Slots	Expansion slots: 3 full-height PCI, 1 full-height PCI Express x1, 2 full-height PCI Express x16
Ports	External I/O ports: Rear: 6 USB 2.0, 1 standard serial port, 1 optional serial port, 1 optional parallel port, 2 PS/2, 1 RJ-45, 1 VGA, 1 Display Port, audio in/out; Front: 2 USB 2.0, headphone and microphone
Power Supply	250-watt ATX Power Supply – PFC (Active Power Factor Correction (PFC)

Personal Computers	
Features	Specifications
	power supply). Surge protected
Keyboard	USB/PS/2 104 +14 keys multimedia keyboard (Same make as PC)
Monitor	18.5 " LCD monitor with TCO 5.0 Certification
Mouse	USB/PS/2 2 Button Optical Scroll Mouse(Same make as PC)
Operating System	Microsoft Windows 7 (Professional Edition)
Compliance And Certification	As per industry standard for PC and energy star for Monitor
Drivers for different Operating systems	Drivers should be freely available on OEM's web site and should be supplied in media along with PC
Certification	UL/ CSA. FCC, WINXP/ Linux / Redhat / SUSE certifications
Warranty	3 years comprehensive onsite replacement warranty.
Antivirus	For each PC with upgrade license for 3 years (CDs to be included)

ii. **Duplex Laser Printers**

Feature	Specification
Speed (min.)	28 PPM (A4) or higher
Processor	400 MHz or higher
Memory(min.)	64 MB or higher
Resolution	1200x1200 dpi
Interface	USB, Ethernet (UTP) with respective cables
Monthly Duty Cycle	50000 Pages
Language	PCL6 / PS2 or higher
Print Mode	Automatic Duplex Mode
Cartridge	Full Cartridge- Starter Cartridge not acceptable

Feature	Specification
Drivers	Windows 2000, Windows XP, Windows Vista, Windows 7, MAC OS 9.0, MAC OS X, Linux Kernel 2.4 or later

iii. **Multi Function Device (Print/Scan/Copy)**

Feature	Specification
Memory(min.)	32 MB / 64 MB
Resolution	1200x1200 dpi
Interface	USB, Ethernet (UTP) with respective cables
Monthly Duty Cycle	10000 Pages
Language	PCL6 / PS2 or higher
Printer Specification	Print speed, black (normal quality mode)-18 PPM or higher
	First page out (black)- As fast as 8 sec
	Monthly duty cycle- Up to 10000 pages
	Print technology- Laser
Scanner Specification	Flatbed with ADF
	Scan resolution, optical Up to 1200 dpi
	Bit depth: 24-bit, 64 bit
	Scan size, maximum (flatbed) : A4, A3
	Scan size, maximum (ADF) : A4, A3
	Scan speed (default) : 15 ppm or higher
Copier Specification	Copy resolution, black : Up to 600 x 600 dpi
	Copy resolution, color: Up to 1200 x 1200 dpi
	Copy reduce/enlarge settings : 25 to 400%
	Maximum number of copies : Up to 99 copies
Drivers	Windows 2000, Windows XP, Windows Vista, Windows 7, MAC OS 9.0,

Feature	Specification
	MAC OS X, Linux Kernel 2.4 or later

iv. Digital Pad & Pen

Feature	Specification
Pad Size	336mm (length) x 245mm (width)
Writing Area	210mm x 279mm
Notepad holder	210mm x 300mm
Built-in memory	32MB or more
Memory slot	Secure Digital
Digital pen size	134mm x 11.3mm (diameter)
Digital page file formats	DHW; DND
OS Supported	Windows 2000, Windows XP, Windows Vista, Windows 7, MAC OS 9.0, MAC OS X, Linux Kernel 2.4 or later
Interface	USB 1.0 & 2.0

v. Finger print reader

Feature	Specification
Technology	Full digital beam forming
Probe	Automatic identification
Scanning angle	Adjustable
Interface	USB 1.0 & 2.0 For real-time picture uploading to PC
Scanning mode	Convex/Linear
Image conversion	Up/down, left/right, black/white
Port	PAL-D video out, USB 1.0 & 2.0
Monitor	TFT color LCD

Feature	Specification
Operating System Support	Windows 2000, Windows XP, Windows Vista, Windows 7, MAC OS 9.0, MAC OS X, Linux Kernel 2.4 or later

vi. Digital Camera

Feature	Specification
Effective Megapixels	14 megapixels or Higher
Image sensor	CMOS / CCD
Image sensor size	0.400 inches or larger
Image format	JPEG /RAW
White balance	Auto & Manual
Image Stabilization	Hardware
Maximum Optical Zoom	4 X or Higher
Digital Zoom	8X or Higher
Maximum Wide	Angle 28 mm
Minimum aperture	8
Maximum aperture	2
LCD screen size	3 inches or higher
Has live preview	Yes
Maximum shutter speed	2500
Minimum shutter speed	15
ISO Low	100
ISO High	3200
Exposure settings	Aperture Priority & Shutter Priority
Memory	8 GB SD Memory Card / SDHC Memory Card / SDXC Memory Card

Feature	Specification
Flash characteristics	Built-in Auto Flash
Flash	Slow Sync / Red-Eye Reduction
Maximum video capture resolution	1280 x 720 pixels
Maximum frame rate	30 Frames per Second
Video capture format	MOV/AVI
Interface connection	USB 1.0 & 2.0
Battery Type	Lithium Ion/ AA Battery
Rechargeable	Yes
Operating System Support	Windows 2000, Windows XP, Windows Vista, Windows 7, MAC OS 9.0, MAC OS X, Linux Kernel 2.4 or later

vii. 160 GB External Hard Disk Drive

Feature	Specification
Capacity	160 GB
Type	External
Interface	USB 2.0 & USB 1.1
Spindle Speed	5400 RPM
Buffer Size	8 MB
Seek Time	12 ms
Transfer Rate	60 Mega Bytes /s
Form Factor	2.5"
OS Support	Windows 2000, Windows XP, Windows Vista, Windows 7, MAC OS 9.0, MAC OS X, Linux Kernel 2.4 or later

viii. **16 Port Switch – Unmanaged**

Feature	Specification
Standards	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet ANSI/IEEE 802.3 NWay auto negotiation
Protocol	CSMA/CD
Data Transfer Rates	Ethernet 10Mbps (half-duplex) 20Mbps (full-duplex) Fast Ethernet: 100Mbps (half-duplex) 200Mbps (full-duplex)
Network Cables	10BASE-T: UTP Cat. 3, 4, 5 (100 m) EIA/TIA-586 100-ohm STP (100 m) 100BASE-TX: UTP Cat. 5 (100 m) EIA/TIA-568 100-ohm STP (100m max.)
Number of Ports	10/100Mbps port x 16
Twisted-pair Rx Reverse Polarity	Auto-correction for each port
MAC Address Learning	Automatic update
RAM Buffer	4Mbits per device
Power Supply	100 - 240 VAC, 50/60 Hz 0.3A Internal power supply

ix. 5 KVA Silent Generator - Diesel

Rated continuous output shall be not less than 5 kVA at 0.8 power factor at generator output terminals. (Based on 35°C ambient temperature a relative humidity of 90% and at altitude of 100 m MSL.) The unit shall be capable of delivering the rated output for continuous period of not less than 8 hours at a time. It shall have overload capacity of 110% of the rated output for one hour during a period of 8 hours.

Feature	Specification
ENGINE	
Starting System	Electric
Number of strokes	4
Cooling	Water Cooled
Power/RPM	9.3HP@ 3000RPM
Fuel Tank	Integral metal fuel tank (capacity sufficient for 08 hours operation at full load but not less than 90 litres)
Alternator	
Type	1Phase, brushless
RPM	3000
Frequency	- 50 ± 2% Hz
Voltage	230 V ± 5%
Control Panel	
	Voltmeter
	Ammeter
	Hour meter
	Fuel level gauge
	Battery charging indication
	Key start switch

Feature	Specification
	Main ON/OFF Switch with Indication
	DG ON/OFF Switch with Indication
	Low Lub.Oil Pressure Auto shut off
Battery Capacity	55AH
AMF	a) Battery Charge through AMF b) Auto Main Off/On with suitable safety and displays
Compliance	CPCB Noise Norms

x. **UPS – 2 KVA Online & 1 KVA Online**

Feature	Specification
Power Rating	For 2KVA UPS: 2 kVA/ 1.6 kW with 120 min backup
	For 1 KVA UPS:1kVA/ 0.8 kW with 120 min backup
Technology	True On-Line Double Conversion Architecture with built in Isolation Transformer
Nominal input voltage (VAC)	220/230/240 VAC
Input voltage Range	160-290 VAC
Operating Frequency	50Hz
Nominal output Voltage	230 VAC
Output voltage Regulation	+/-1%

Feature	Specification
Overload Capacity	Up to 110 % for 2 minute, 111-150% for 30 sec
Efficiency	85% (On-Line mode) >93% (High efficiency mode)
Load Crest Factor	3 : 1
LED	LCD Display having complete information about the Input and Output data
Standard Communication ports	RS232
Optional Slots	SNMP, Multiserver card, relay card , Modbus card
Form Factor	Floor Mounted type
Battery Type	Sealed Maintenance Free
Battery Runtime	For 120 Min. backup minimum VAH should be 6400. Total number of batteries offered should be clearly mentioned. Voltage of each battery offered should be clearly mentioned Ampere-Hour rating of each battery offered should be clearly mentioned. Total Volt-Ampere-Hour rating of the Battery Bank Offered should be clearly mentioned
Start-On-Battery	Should allow startup of UPS without utility input
Operating Temperature	0°C - +40°C
Storage Temp	Recommended 0°C - +40°C
Altitude	< 3000 M
Audible Noise	<50 dB battery mode
RoHS Compliance	Should be EU RoHS / WEEE Compliant
Markings	CE
Safety	IEC 60950

Feature	Specification
EMC	EN 50091-2 /equivalent
Quality	ISO 9001, ISO 14001

xi. UPS –500 VA

Feature	Specification
Power Rating	500VA
Input voltage range for main operations	168 - 280V
Operating Frequency	50Hz
Nominal output Voltage	230V
Surge Protection and Filtering	Surge energy rating : 300 Joules
	Data Line Protection : RJ-45 Modem/Fax protection (two wire single line)
Communication & Management	Control panel : LED status display with On Line : On Battery : Replace Battery and Overload indicators
	Audible Alarm : Alarm when on battery ; distinctive low battery alarm ; overload continuous tone alarm
Battery Type	Maintenance-free sealed Lead-Acid battery with suspended electrolyte : leak proof
Operating Temperature	0 - 40 °C
Audible Noise	45.00 dBA
RoHS Compliance	Yes

xii. Furniture Specifications

1. Specs of Computer Table:

Size	4'x2'x2.5'
Top & Understructure	18mm to 28mm thick top of PLB (Prelaminated Board). Edges sealed with PVC beading. Understructure of MS (Metal Steel) duly powder coated with 35 microns minimum. Comprising of plastic KBPT (Keyboard Pull out Tray) fitted under the table top
Load Bearing Capacity	40 KG for the Table Top & 15 KG for the shelf
Hardware	Comprising of Glide screws & self-tapping screws

2. Specs of Computer Chair:

OVERALL SIZE	<ul style="list-style-type: none"> • Width: at least 70cm • Depth: at least 70cm • Height: 84 – 96.5cm • Seat height: 46.6 – 59cm
SEAT/BACK ASSEMBLY	<p>The seat and back should be made up of at least 1.2cm thick hot pressed plywood, upholstered with fabric and moulded Polyurethane foam with PVC (Poly Vinyl Chloride) lipping all around.</p> <p>Back Size – W 49cm x H 47cm</p> <p>Seat Size – W 49cm x D 44cm</p>
FOAM	The polyurethane foam should have density and hardness suitable for heavy usage (at least 80 Kgs load)
ARMRESTS	The chair should have robust armrests
CENTRE PIVOT MECHANISM	<p>The centre pivot mechanism should have the following features:</p> <ul style="list-style-type: none"> • 360 degree revolving type. • 17-20 degree maximum tilt on pivot at

	<p>centre.</p> <ul style="list-style-type: none">• Tilt tension adjustment.• Upright locking.
PNEUMATIC HEIGHT ADJUSTMENT	The pneumatic height adjustment facility should be there.
TELESCOPIC BELLOW ASSEMBLY	The bellow should be of 3 piece telescopic type and injection moulded in black Polypropylene
PEDESTAL ASSEMBLY	The pedestal should be fabricated from at least 0.2cm thick CR (Cold Rolled) Steel and powder coated. Twin wheel castors (castors with diameter 5.0cm) are required