

## Power Supply

- Also called SMPS (Switched Mode Power Supply)
- Another name: PSU (Power Supply Unit)
- Converts AC power to DC power
- It consists of
  - Connection to power chord
  - Fan
  - A red switch to change power voltage
  - Rocker switch to turn on power supply

## Motherboard

- Main circuit board
- System board
- Mobo
- PCB (Printed Circuit Board)
- Contains expansion slot for RAM, Graphic Cards, Modem and other components
- It supplies electricity to all components of computer

AGP: Accelerated Graphic Port

PCI: Peripheral Component Interconnect

## UPS

- Uninterruptible Power Supply
- Battery supported power protect device
- Control voltage fluctuation

- Supplies power continuously from battery if main power is cut off

Online UPS	Offline UPS
Power is supplied through battery all the time	Power is supplied through battery only at the time of power failure
No switching, no delay	Switching mechanism, thus delay in power supply
More Expensive	Less Expensive
Used for back up of important hardware and data	Used for normal backup
Battery is less durable	Battery is more durable

## BIOS

- Basic Input Output System
- Stored in ROM
- Used by CPU to perform start up operations when computer is turned on
- A firmware of computer
- Manages data flow between OS and computer peripheral

## Functions of BIOS

- POST: Power On Self Test
  - Test the peripheral devices and other hardware before loading OS
- Bootstrap Loader: Locates and loads OS
- Software/Driver: locates software and drivers related to OS
- CMOS: Complementary Metal Oxide Semi conductor,
  - A configuration program that enables user to alter hardware and system settings

## Other function of BIOS

- Change the boot order
- Change date/time of computer
- Change CPU settings
- Change memory setting
- Change or remove BIOS password
- Changed CD/DVD setting

## Connector

### BNC Connector

- Bayonet Neill- Concelman
- Miniature radio frequency connector developed for low frequency application
- Used to connect coaxial cable

### RJ45 connector

- Registered Jack 45
- Used to connect Ethernet cable (UTP or STP)
- Used in LAN to connect computers in network physically

### HDMI

- High Definition Multimedia Interface
- A digital interface for audio and video connection
- Provides single cable solution for high quality video display
- Used to connect TV, monitor, projector etc.

## Device Driver

- System software needed to operate any device attached to computer
- Makes devices functional

### Update device driver

- Right click 'computer' icon
- Manage
- Device manager
- List of all the devices is displayed
- Exclamation sign is seen if driver is needed to update
- Right click the device > update driver

## System Restore

- Feature of windows that reverts computer system into previous stage
- Used to reverse state of computer to earlier point of time.

### Using System Restore

1. Turn on System protection and create restore point
  - ⇒ Right click 'computer' icon > properties
  - ⇒ 'System protection'
  - ⇒ Select the drive in which OS is installed under 'protection setting'
  - ⇒ 'configure'
  - ⇒ 'turn on system protection' > Ok
  - ⇒ 'create'
  - ⇒ Give name > ok
2. Restore system to earlier state where restore point is created

- ⇒ Right click computer icon > properties
- ⇒ 'system protection'
- ⇒ 'system restore' > next
- ⇒ Select desired restore point
- ⇒ Next
- ⇒ Computer is restored to earlier state after it is restarted

## Back up

- Extra copy of data
- Process of duplication
- Allows to retrieve or restore data in case of destruction of original data

## Method or types of backup

### Full back up

- Makes a copy of all data to a storage device in each back up operation
- Takes much time to take back up
- Takes much storage
- Takes less time to restore data
- Easier to restore

### Incremental Backup

- Makes a copy of only the data that is changed since last back up operation
- Copies smaller amount data than full backup
- Takes less time to back up
- Uses less storage
- Takes much time to restore data

### Differential backup

- Similar to incremental backup in first time
- Copies all data changed since last full back up
- Takes less time than full back but more time than incremental backup
- More complex
- Takes less time to restore than incremental backup

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