

**Computer:** Computer is an electronics' device which accept data as input process it & gives output as a result.

Life circuit of computer

I.P.O

stands form of I.P.O

Input      Process      Output

Explanation of Input-Process-output cycle

The Input-process-output cycle is the most basic explanation of how users interact with a computer. The Input step is where the user requests something from the computer using an input device, like a keyboard or a mouse. The Process step is when the computer takes the information & processes it internally & the final Output step is when the computer respond to the request it has processed to an output device like a monitor or a printer. This is significant because it is same way that people interact in real life. A real life example would be someone buying something from a shop. This input step would be handing the shopkeeper money & requesting goods. The Process step would be the shopkeeper putting the money in the till & getting the good whilst the output step would be the shopkeeper handing over the goods & the change.

which type of Software

- 1- Application
- 2- O.S (operating system)
- 3- Utility



## Generation of Computer

first generation :- 1940 - 1956 In first generation of Computer vacuum tube was used & it was huge in size & cost.

The UNIVAC & ENIAC Computers are the example of first generation of computer.

UNIVAC is the first commercial computer used in census bureau.

Micro PV	-	Computer
Abacus	-	Mechanical

Second Generation :- 1956 - 1963 In the second generation of computer used transistor & transister that was more efficient & cheap replaced valves.

Third Generation :- 1964 - 1971 In third generation of computer used integrated circuit.

A major circuit size & capacity was achieved when hundreds of transistor could be replaced on a single silicon chip.

fourth generation :- 1971 - present In fourth generation of Computer used -

1981 IBM introduced its first computer for the user & 1984 Apple introduced the Macintosh & fourth generation computer also saw the development of GUI

fifth generation: Present & beyond artificial intelligence  $\Rightarrow$   
The fifth generation of computer tries to infuse

intelligence into computer

As example of robots.

Windows explorer:-

Q: what is windows explorer?

Windows explorer is an application it help you to view & manage file & folders on your computer.

what are the components of windows explorer?

1) Tool bar ✓

2) Folder Pane ✓

3) Content Pane ✓

4) Plus sign ✓

Folder Pane: It displays the hierarchical structure.

Plus sign: Plus sign icon appears with the folder containing sub folders.

Its Primary folder are

My Document

My Computer

My Network places

Recycle bin

## Content Pane

It displays the file & sub folder of selected folder in the folder pane. The view of the content pane can be modified by using the view menu.

- 1) Extra large icon
- 2) Large icon
- 3) Medium icon
- 4) Small icon
- 5) List icon
- 6) Details
- 7) Content

Tool bar : Displays shortcuts to the menu items.

## ITFC - IT Fundamental & Computer

### Managing files & folder

#### Create a folder

The steps to create a new folder are -

- 1) Select the folder in which you want to create the new folder.
- 2) Select the make a new folder hyper link from the file & folder task list.
- 3) Type the name of folder press enter.

\* Create a file

1) Click the file name in windows explorer.

2) Select the new option.

3) Select the type of file from the new sub menu.

computer shortcut key :-

CTRL + SHIFT = New folder create

Rename = F2

Cut = Ctrl + X

Copy = Ctrl + C

Paste = Ctrl + V

Delete = Delete Button

→ Shift + Del = Permanent Delete

\* Temporary Delete : Delete Button click

→ And file or folder restore in Recycle Bin.

\* window田 + D = Desktop jump

\* window田 + E = Explorer jump

→ (CTRL Click to check Cursor Painter

- Renaming files & folders:-

- 1) Click the file or folder that you want to rename.
- 2) Click the rename this file or/ folder rename this folder hyperlink in the file & folder Tasks, list in the left pane. In to other operating system . click the right mouse button & select the rename option. A cursor will appear in the file/ folder name that will enable you to edit the name.
- 3) Type the new name.
- 4) Press enter.

Copying file & and folder:-

To copy a file or folder . Perform the following steps:-

- 1) Click the file or folder that you want to copy.
- 2) Click the copy this file or copy this folder Hyperlink under file & folder task in the left pane of the window . The copy items dialog box will be display
- 3) Select a folder from the list & click the copy button & the file or folder will be copied to that folder



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## Moving file & folder

- To move a file or folder perform the following steps:
- 1- Click the file or folder that you want to move.
  - 2- Click the move this file or move this folder hyperlink under file & folder task in the left pane of the window. The move items dialog box will be displayed.
  - 3- Selected a folder from the list & click the move button & the file or folder will be moved to that folder.

## Deleting file & folder:-

- To delete a file or folder perform the following steps:
- 1- Click the file or folder that you want to delete.
  - 2- Click the delete this file or delete this folder hyperlink under file & folder task in the left pane of window. The delete items dialog box will be displayed.
  - 3- The deleted files & folder are moved the recycle bin folder you can restore or performing delete the files using menu options from the recycle bin folder.



## Changing the Display :-

- The Display properties option enables you to copy a background to the desktop screen change the Colours the desktop screen & apply a screen saver.
- To open the displays properties dialog box perform the following steps.
- 1) click the right mouse button on the blank area of the desktop screen. A menu is display.
- 2) Select the properties option from the menu. The display properties dialog box is display.

## Using Accessories :-

An accessory is a powerful & fully integrated set of tools for windows operating system.

- To open the accessories option in windows explorer select - All programs - Accessories
  - The various option included in accessories are -
- i) Calculator
  - ii) Notepad
  - iii) Paint

### Calculator :-

The Calculator accessory allows you to perform simple mathematical as well as complex statistical & scientific calculator.

Notepad :- Notepad used to write letters, short memo, resumes & other document

- Some of the features of Notepad are

- i) word wrap
- ii) Copying & Pasting text
- iii) finding text

## Paint :-

Paint is another accessory that you can use to draw images or drawing.

- ① ⓧ + All Programs → Accessory → Notepad
- ② ⓧ + R — Notepad
- ③ ⓧ + Type word — Notepad

## Introducing Hardware

- \* Computer hardware comprises of electronic components such as CPU & monitor.
- \* It also includes electromechanical parts like Keyboard, mouse, Printer, Scanner, Disk drives, Tape drives, Loudspeaker for input output & storage.
- \* Mouse :-

It is an input device that is important for graphical user interfaces because you can simply point to options & click a mouse button.

Two types of mouse

- i) Mechanical
- ii) Optical

Categories of mouse

- i) Trackball mouse
- ii) Joystick mouse
- iii) Light pen mouse
- iv) wireless mouse
- v) Touch pad mouse

Scanner :- A scanner scans an image & transform the to ASCII codes that is used by a computer to represent the characters you find on your keyboard such as, alphabets numbers punctuation mark & graphics.

Here are three types of Scanner

① flatbed scanner :-

It works like a copy machine except that it creates a file of the document rather than a paper copy.

② sheetfed :- These devices are more like a fax machine because they move page being scanned head rather than the other way around

③ Hand held scanner :- It is a scanning device where the scanning element is built into a small hand held unit.

### Touch Screen

Touch screen are normally used when information has to be accessed with minimum effort following figure displays a touch screen.

There are 4 types of touch screen

- i} Resistive touch screen
- ii} Infrared touch screen
- iii} Surface acoustic touch screen.
- iv} Capacitive touch screen.



## Printer :-

Printer are output device that print the result of operation on paper.

→ Printers are classified based on a number of parameters like the mechanism used for printing the quality of output the direction of printing & the kind of interface they have with the computer.

There two main types of printers

i) Impact printers (DMP)

There is contact between the type face & the paper while printing.

ii) Non impact printer : there is no contact between the type face & the paper while printing.

The main types of non-impact printer

i) Laser printer

ii) inkjet printer

iii) Thermal printer





## Plotters :-

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A plotter is an output device that is used to create presentation visuals, charts, graphs, tables & diagrams.

Plotters are two types :-

- i) Flatbed printer plotter
- ii) Drum Plotter

## M.S OFFICE

Storage Media :- Data needs to be stored for later use on storage media.

There are three types of storage media:-

- i) Cartridge tape
- ii) Compact disk - Read only memory (CD-Rom)
- iii) Memory stick

### Cartridge tape :-

- i) It stores data sequentially
- ii) It made up of plastic films coated with magnetic material.

### C.D Rom

- i) It can store large quantity of data (700 MB or more).
- ii) Can not be easily erased & written on to unlike.

iii) Require a CD recorder to write on the disk. Require a CD Rom drive to read data from.

### Memory stick :-

It designed to become a standard digital data storage & transfer media.

It portable light reliable & easy to use.

### Portable computer

Personal Computer (PC) can be classified two broad groups.

i) Desktop

ii) Portables

i) Desktop :- can be carried around & used while travelling

ii) Portables :- can be carried around & used while travel

### Class of Portables

Laptop :- laptop are small, slim & attach case computers weighing between 1.7 kg & 4 kg

**Palmtop :-** palmtop are the smallest of portables & are normally of the size of a pocket calculator.

**PDA :-** (personal Digital Assistant)

- i) Is a handheld computing device that allows I/O operation on data
- ii) Contains at least one database has features including networking wireless communication features voice recording & etc.

example :-

Apple, Newton, Casio, cassiopeia & so on.

**Bluetooth Technology :-**

Bluetooth is a wireless portables that is used to communicate from one device to another in small area usually less than 30 feet

**Introducing components of system unit :-**

The system unit is a box like unit filled with a number of useful component each performing a discrete function.

The component work together to accomplish the main function of computer, accept & process input & delivery outputs.

## Internal Power Supply

Internal power supply is referred to as switched Mode Power Supply (SMPS).

SMPS connected connector to supply the required voltage like the floppy drives the hard disk drive the Motherboard & external device such as the keyboard, mouse etc.

The ON / OFF switch of the system unit is actually a part of the SMPS.

Exhaust fan :- The SMPS has a small fan called the exhaust fan, which rotates as long as the computer is switched ON.

Motherboard :- Motherboard is a large board which contains number of tiny electronic circuits & other components that are visible.

All the peripheral devices are connected to the motherboard.

The components of the motherboard are

- ① Chipset
- ② Microprocessor
- ③ Clock chip
- ④ Memory - RAM & ROM
- ⑤ Bus
- ⑥ Ports

**Chipset** :- It is a set of chips attached to the motherboard. It is used to enable communication b/w the processor & other components.

**Microprocessor** :- It is used to do the processing of a computer.

It consists of

- ① Arithmetic logic unit (ALU)
- ② Control unit
- ③ Registers

**Clock chips** :- It provides the timing signal in the form of electronic pulses. It is used by the computer components to set up a working pace.

**Memory** :- It is present on the motherboard in the form of chips.

The two types of memory are

Random Access memory (RAM)

Read only memory (ROM)

**Bus** :- It is a set of wires. It is used to communicate & transfer data b/w the microprocessor & the memory chips.

**Ports** :- They are the inlets & outlets of the microprocessor. All input & output devices connected to the system unit through ports. The microprocessor communicates with the external devices through them.

## Storage system

The storage system consists of three logical parts:

The medium itself, such as the diskette, the cartridge tape or the hard disk.

- The mechanism that operates this medium - spins the disk or spools the tape. This is called the drive.
- The electronic that controls the drive through commands given by the computer system. This is called the controller.

The different types of storage system are:

Floppy disk system

Hard disk system

compact disc system

Magneto-optical disk system

### Introducing Displays Adapters Their types

Images are formed on the monitor's screen by a card called the display adapter card.

The key elements of a display adapter are the video controller & the memory.

Some of the parameters that are used to distinguish b/w the various display adapters are

- Display in text mode
- Resolution in graphics mode

Some of the popular display adapter of

- EGA
- VGA
- SVGA

### EGA ( Enhanced Graphics Adapter )

- It unifies the features of a variety of display adapter.
- It supports up to 16 colors at a time.
- It is expensive & is not supported by specific software provided by some vendors.
- It has a resolution of either  $640 \times 200$  pixels or  $640 \times 350$  pixels.

### VGA ( Video Graphics Array )

It provides a resolution of  $720 \times 400$  pixels in text mode.

In graphics mode, the resolution is either  $640 \times 400$  with 16 colors or  $320 \times 200$  with 256 colors.

### SVGA or UVGA ( Super or Ultra Video Graphics Array )

It is an improvement on the VGA.

It was developed by a industry standards consortium called the video Electronic standard Association (VESA) in 1989.

It provides many combination of resolution & colors.

### Introducing Add on Cards

An add-on cards is a special piece of hardware, which is required for communication b/w the PC & other electronic devices.

Some of the most common add-on cards are:

Video Card

Network Interface Card (NIC)

Modem Card

Sound Card

(Intensity of Pulse)



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## Internet

### Evolution of the Internet

In 1967, Advance Research Projects Agency (ARPA) proposed an idea to develop small networks of computers called APRANET.

In the late 1980s, the U.S National Science Foundation (NSF) developed network called NFS NET.

In 1990, Tim Berners - lee created the World Wide web (WWW) to introduce user interface that would be consistent across all platforms.

The world wide web (WWW) consist of the following components

**Web page** :- Represent an electronic document that stores the contents of a website.

**Website** :- Represent a set of interconnected web pages displaying related information on a particular Subject.

### Uniform Resource locator (URL)

Represent the address of a website on the internet.

**Web browser** :- Is a program that you can use to access a website on the internet by specifying the URL of the website.

For Connecting to the internet you need hardware as well as software components

The hardware components required are as follows

- A Computer
- Telephone connection or Cable Connection
- An external or internal modem

The software components required are as follows

An operating system , such as windows  
TCP / IP- address , web browser

The Prerequisites to connects to the Internet are

Internet connection from an Internet service Provider (ISP)

Dial up Connection :- In a dial - up connection, a computer dials the ISP by using the dial up networking software installed on the computer.

Direct Computer :- In a direct connection ISP can directly connect a computer to the internet through a Digital Subscriber Line (DSL) or a cable .

Modems :

A hardware device known as Modulator - Demodulator (modem) is used to convert digital signals to convert digital signals to analog signals

These signals can be transmitted through telephones lines.

At the destination end, the modem reconnects the analog signals.

Web browser can be categorized as:-

Text browser

Displays only text on a web page.

Restrict the use of graphic on a web page.

Graphic browser

Displays both text & graphics on a web page.

Displays multimedia, animation graphics & various available web browser are.

National Centre for Supercomputing Application (NCSA) Mosaic.

Internet explorer

Netscape Navigator → first web browser

Mozilla

Opera

Search engines are websites that allow users to search information on the basis of keywords or a combination of keywords.

A search engine takes the keywords to be searched as the search string & either returns the URLs of the website that contains information on the subjects specified

Google at <http://www.google.com.in>

Altavista <http://www.altavista.com> yahoo

The indexed information can be retrieved quickly.

Static index :- Allow users to manually search information through the direction directories of the indexed information.

Keyword index :- Allow users to enter any text string to be searched.

Full text index :- Allow users to enter any phrase to be searched.



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## M.S Word

Word 2013 is one of the most popular products of the Microsoft Office 2013 suite.

It is a word processor that helps you to create, edit & format documents, such as letter, report or web pages.

### Exploring the Word 2013 Interface

#### Step 1:-

To start Word 2013, perform the following steps

Step 1:- Press the Windows logo key. The start screen appears.

Step 2:- Start typing Word 2013. The search pane & apps screen appears as shown in the following fig.

Step 3:- Select the Word 2013 option on the apps screen. The Word start window appears, as shown in the following fig.

Before you start working Word 2013 learn the various elements that are available on its interface. The Word interface consists of the following main elements.

File tab

Quick access Toolbar

status bar

Ribbon Panel

## Exploring the file tab

The file tab is placed at top left corner of the word interface. When you click on file tab, the Backstage view appears.

A part from set of option the backstage view also displays additional information & property of the document.

The list of the option in backstage view are

Info

New

Open

Save

Save as

Print

Share

Export

Close

Account

options

## Using the quick access Toolbar

Quick access Toolbar provide frequently used

## Commands of word 2013.

Status bar:- The status bar is a place at the bottom of the word 2013 window. It displays the information related to currently open document such as the page number & the total number of page in a document. In addition it contains some controls for changing the display of the currently open document.

Controls are displayed in the Status bar:-

Page number

Word count

Contextual Spell checker

Document view

Zoom Controls

Ribbon Panel :- Ribbon panel at the top of a word document window. It comprises easily accessible commands required to work on a document.

Home, Insert, Design, Page number layout, Reference, Mailings, Review & view.

## 7 Threats we should know in a Computer

- ① Windows installing / windows corrupt
- ② How to reset password
- ③ Hard disk partition
- ④ driver Issue

↓  
Software for driver Installation

⑤ Driver Pack Solution → Software

⑥ data recover (Recuva) — recovery Software

⑦ How to make your Computer speed up

⑧ virus remover

↓  
Virus total → Software

Install Software in phone

→ Stock ROM

→ SP Flash tool

→ USB driver

C.P.U Ports & Connectors

power Connector, C.P.U Fan, PS-2 Connector  
↓  
audio Input

SPDIF → Sony Philips digital Interface

↓  
Input for experience dolly sound

USB Port →

USB 2.0  
↓  
3.0

eSATA Port

Audio Port

Mic - Pink

Headphone - Green

Audio Output - Blue

LAN Port → Ethernet port  
local area network