UNIT:1 FUNDAMENTALES OF COMPUTER

➢ Introduction

Computer Fundamental is intended for anyone who interested for knowing about computers.in these days, computers are used every occupation or fields.in this topic we will learn about how computer system functions,what its various components are and what are its characteristics and limitation.

What is computer ?

Computer is an advanced electronic machine that takes raw data as input from the user and processes it under the control of set of instructions give the result(output)and save it for future use**.**

Raw data(Input) **Result(Output)**

Data:- Collection of information is called data.For example for students's information their Name, Roll no , Class is the Data.

Input Device: All peripheral device which are used to give instruction and data to computer (CPU) are called input devices. for example-keyboard ,mouse, camera, Scanner, Microphone etc**.**

Output devic All peripheral device which are used to give output after processing are called output devices. for example Monitor, Printer, Speaker, printer etc.

➢ Characteristics of computer system

There are following characteristics of computer which makes computer a powerful tools of our life.

1. **Speed:** A computer is very fast device.it can performe in few seconds,the amount of Work that a human being can don in an entire years-if he/she worked day and night and did nothing else.
2. **Accuracy:** Computer always give accurate result,the accuracy of computer does not go down when they are used continuosly for hours together it always gives accurate resul.
3. **Storage Capaci** Computer have a very large storage capacity.A large volume of information can be stored in memory of computer and information can be retrived correctly when desired.
4. **Versatility:** Versatility is one of the most wonderful things about a computer.One moment it is preparing results of an examination, next moment it is busy preparing electricity bills,and between, it may be helping to listen music.
5. **Automatic:**An automatic machine works by itself without human intervention.Computers are automatic machine because once started on a job, they carry out the job(normally without any human assistance)until it is finished.

- **Limitation of computers**

i. **NO Thoughts:** Computer have no thoughts because they are machine and they are devoid of emotions they have no fillings since computer have no thought and fillings.

ii. **No I.Q.:** A computer is not a magical device.it possesses No intelligence of its own.it's I.Q. is zero,at least today.it has to be told what to do and in what sequence.A computer can not take its own decision.

➢ Generation of Computer:

Generation in computer terminology is a change in technology a computer is/was being used. Initially, the generation term was used to distinguish between varying hardware technologies. Nowadays, generation includes both hardware and software, which together make up an entire computer system.

Following are the main five generations of computers.

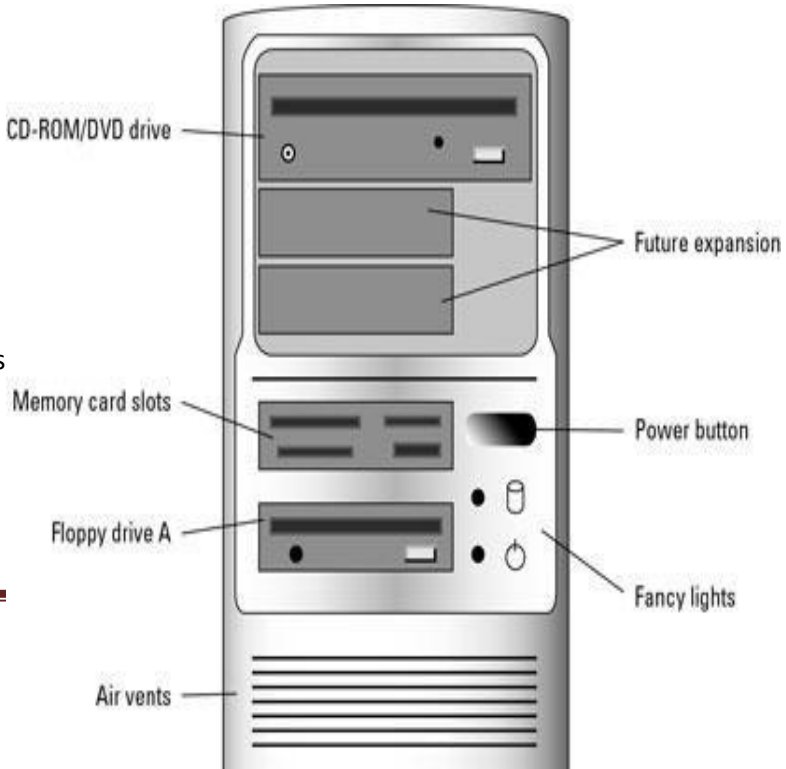
1	First Generation The period of first generation: 1942-1955. Vacuum tube based.
2	Second Generation The period of second generation: 1955-1965. Transistor based.
3	Third Generation The period of third generation: 1965-1975. Integrated Circuit based.
4	Fourth Generation The period of fourth generation: 1975-1985. VLSI microprocessor based.
5	Fifth Generation The period of fifth generation: 1995-onwards. ULSI microprocessor based.

➢ Component of PC:

Any computer consist of two fundamental components: Hardware and Software.A physical component of computer which can be seen and touched is called hardware.While Software is a collection of computer programs,procedures and documentation that perform some task on a computer system.

A computer Consists primarily of the following parts.

1. Input unit:This unit work to give instructions and data to CPU.
2. CPU(Central processing unit):This unit process data give through input unit according to instructions or command.
3. Output unit:This unit displays the results after processing.
4. Auxiliary storage/Secondary Storage unit: This unit use to store data permanently for future use.



➢ The system unit:

You might have observed that we have been referring to a computer as a system (computer system).What can be the reason behind behind this?To know the answer,let us first understand the definition of a system. A system is group of integrated parts that have a common purpose of achieving some objective.Hence,a system must have the following three Characteristics:

figure: front part of system unit

a. It must have a more than one element.
b. All its elements must be related logically.
c. All its elements must be controlled in a manner to achieve the system goel.

Here,CPU Is the main unit of computer because all components of computer system are attached to the cpu such as keyboard , mouse, monitor ,printer and Speaker etc.

CPU fixed in the CPU Box (Cabinet).And the CPU cabinet have two parts.

a. Front part
b. Back part

- **Front Part of System Unit**

CD/DVD Driver: It is used to read and Write CD or DVD.

Floppy-Driver:This is used to read and write content in Floppy drive.

USB-PORT:This is used to attach the usb cabled component of computer like mouse, keyboar, pendrive etc.

Power Button: This is used to give the power to mother board by switching this button.

Reset Button: This is used to restart the CPU.

- **Back part os system Unit**

Serial Port

- Used for external modems and older computer mouse.
- Two version: 9pin,25pin modle.
- Data travels at 115 kilobits per second.

Parallel Port

- Used for scanner and printers.
- Also called printer port.
- 25 pin model.

PS/2 Port

- Used for old computer keyboard and mouse.
- Also called mouse port.
- Most of the old computer provide two PS/2port.

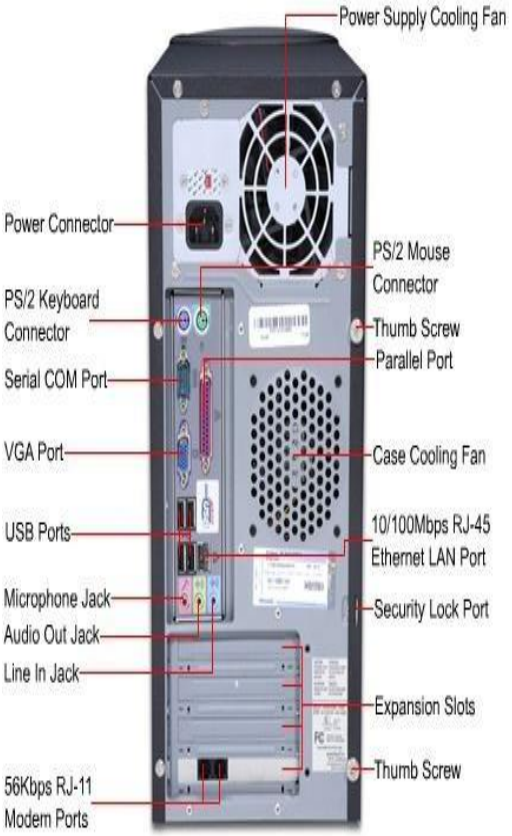


Figure:**Back part of System unit.**

USB(Universal Serial Bus) Port

- It Was introduced in 1997.
- It can connect all kinds of external USB devices such as external hard disk, printer, scanner, mouse, keyboard etc.
- USB compliant device can get power from a USB port.
- Data travels at 12 megabits per seconds.

VGA(Video Graphic Array) Port

- Connects monitor to computer's video card.
- It has 15 hols.
- Similar to Serial port Connector but Serial port connector has pins ,it has holes.

Mordam port

- Connects a PC's modem to telephone network

Power connector

- Three pronged plug.
- Connects to the computer's power cable that plugs into a power bar or wall socket.

➢ CPU(Central Processing Unit)

The CPU or the processor is also called brain of computer.CPU consist of Arithmetic Logic Unit(ALU) , Control Unit(CU) and Primary memory.

Arithmetic Logic Unit(ALU)

- The arithmetic unit performs arithmetic operation on the data that made available to it .Some of the arithmetic operation supported by the arithmetic unit are-addition, subtraction, division, multiplication etc.
- The logical unit of ALU is responsible for performing logic operation.logic unit performs comparisons of number ,latter, and special characters.

Control Unit(CU)

- The control unit of computer does not do any actual processing of data.it organizes the processing of data instructions.It acts as a supervisor and,controls and coordinates the activity of other computer.
- CU also holds the CPU's instruction set,Which is a list of all operation that the cpu can performe.

Primary Memory

- Primary Memory is the main memory of computer.it is used to store data and instructions during the processing of data .
- Primary memory has two kinds-RAM and ROM.

➢ Memory of Computer

Computer Memory is define as one or more sets of chips that store data or program instructions, either temporarily or permanently.The Computer has basically two types of Memory Internal and External Memory.

They are:-

Internal Memory

- ❖ **Main Memory/Primary Memory**
  - RAM(Random Access Memory)or Volatile Memory
  - ROM(Read Only Memory) or Non Volatile Memor
- **Cache Memory**

❖ Main Memory/Primary Memory:

The primary memory or main memory is the most important part of the computer's memory.The main memory classified into two types.

- **RAM(Random Access Memory)or Volatile Memory**
  Ram is the central storage unit in computer system.That is way it is called the main memory.RAM is also called the Read /Write memory as data can be read and written to it.it is temporary memory.The contents of RAM are accessible only as along as the computer ON.Once computer is turned off the contents of RAM are wiped out.Due to the reason it is also called Volatile memory or Scratch pad memory.The RAM is expensive.So the Size is kept small within the MB Range i.e 128MB, 256MB,512MB,and 1024MB and so on up 8GB.
  RAM is of two types:
  - **Static RAM**
  - **Dynamic RAM**
- **ROM(Read Only Memory) or Non Volatile Memory**

ROM is a special type of memory whose contents can only be read.it is permanent memory so,the contents of the ROM are not lost even when the computer is switched off. It is normally used to store the manufacturer's instructions.ROM also stores an initial program called the 'Bootstrap Loader' that has the initial instruction to start the operating system software,once the power is turned On.

Types of ROM are:

- **PROM(Programmable Read Only Memory): This type of ROM can be programmed to store information. Burt once this is done,the information on the ROM or PROM chip cannot be erased.**
- **EPROM(Erasable Programmable Read Only Memory): This type of memory allows a user to erase the information stored on the ROM chip and reprogram it again with new information.The contents of EPROM can be erased by exposing it to ultra-violet(UV)ray,So it is also called UVEPROM(Ultra violet EPROM).**
- **EEPROM(Electrically Erasable Programmable Read Only Memory): This type of EPROM can be reprogrammed.its contents can be erased electrically.**

➔ Cache Memory

This is a special memory used for speeding up the transfer of data and instructions.The speed of the CPU is much higher than the access time of the main memory. This affects the performance of the CPU due to the lower speed of the main memory.To bridge this gap between the operating speeds, a special memory chip called Cache memory is attached between the CPU and main memory.Cache memory is accessed much faster by the CPU than the normal RAM.

Memory Representation

The computer memory stores different kind of data like input data,outputdata,intermediare results,etc. and the instructions. Binary digits or bit is the basic unit of memory.A bit is a

single binary digit, i.e 0 or 1.A bit is the smallest unit of representation of data in a computer.

1bit=0 or 1
1nibble =4bits
1Byte=8bits(2nibbles)
1kilobyte(1KB)=1024Bytes(2^{10}bytes)
1Megabyte(MB)=1024KB(2^{20}bytes)
1Gigabyte(GB)=1024MB(2^{30}bytes)
1Terabyte(TB)=1024TB(2^{40}bytes)
1Petabyte(PB)=1024TB(2^{50}bytes)

Secondary Memory

Secondary memory is used to retrieve quickly and accurately.Secondary memory is used to store large amount of data and instructions permanently.This is also called backup storage. The main memory of the computer has limited storage capacity.So data has to be stored separately in Secondary memory to keep it permanent. Secondary storage device can be used to store many of gigabytes of data today.it much cheaper than the main memory.Floppy disk,CD-ROM,DVD-ROM,Pendrive and Hard disk etc are the Secondary Storage devices.

- **Floppy Disk:**
  A floppy disk is removable, reusable magnetic storage medium.Floppy disks are also called disketters and were introduced by IBM in 1971.Floppy disks are read and written by a floppy disk drive or FDD.
- **Hard Disc:**
  A hard disk drive(HDD)is commonly referred to as a hard drive,hard disk, or fixed drive.it is a non volatile storage device which stores digital data on rapidly rotating discs with magnetic Surfaces. It is made up of substance like aluminium and coated on both sides with magnetic material. Hard disk introduced in 1956 as data storage for IBM accounting computer.
- **CD(Compact disk):**
  It is Secondary storage device that has high storing capacity and is relatively cheaper.A standard 120mm CD holds up to 700MB of information with approx.!4500 tracks per inch.The process of writing on to a CD burning.
- **DVD(Digital Video disc)**
  DVD Stands for digital video disc.it can store up to 4.7GB in a single disc.its diameter is same as CD.
- **Pen Drive/Flash Drive:**
  USB flash drive is type of flash memory data storage devices integrated with USB(Universal Serial Bus)Connector.USB flash drive is typically small,lightweight,removable and rewritable.its storage range 2GB, 4GB, 8GB, 32GB,64GB, and 128GB.

Pripheral devices

All devices which are attached separately to the computer called as Pripheral devices.

Pripheral devices can be classified in to two types:-

Input device: The device which are used to give data or instructions to CPU or computer.

Output device: The devices which are used toproduce the result after processing.

Some input devices are discussed below:-

- **Mouse:-** A mouse is a pointing device that rolls on a flat surface. it consist of a small case,held under one of the user's hands,with one or more buttons and connected to the computer with a cord.The cursor of a mouse is called mouse pointer. As you roll the mouse, the mouse in pointer also moves quickly in the respective direction.

There is different type of mouse:-

- **Optical mouse**: its movement is relative to the ball at the bottom.
- **Laser Mouse**: It uses infrared laser diode instead of normal LED.
- **Wireless mouse**: This type of mouse does not use wire.

- **Keyboard:** The Keyboard is the standard and the most common input device attached to all the computers. It is an arrangement of buttons or keys and can be used to feed number, letters, Special symbols, space etc. Some characters can be typed by pressing a combination of keys simultaneously .while working with a keyboard you will notice a bright flashing line on screen. This is called the cursor. Any key pressed will enter the character at the cursor position.
- **Scanner:** A scanner is an input device for digital image input. It optically scans and copies pictures, printed text, and handwriting, directly into the computer. For this the scanner first photographs the item to be copied and convert it to a digital image.
  The First image scanner ever developed was a drum scanner. It was built in 1957 at US National bureau of standards by team led by Russel Kirsch.
- **Monitor:** A visual Display unit(VDU) also called monitor or scanner give output as visual display. Physically it look similar to a television screen and display both images and text. The output displayed on the monitor is called soft copy because images displayed on the screen are temporary, and do not last forever. Most monitors have 4:3 widths to height ratio. The size of a monitor is measured by the length of the diagonal. The available monitor size are 10",12",14"15"17"19"21". They are available in both multi-colour and black and white (Monochrome). The latest monitors have Flat screen of TFT or LCD(liquid crystal display) type, the older monitors are the CRT(Cathode Ray Tube) type. A VDU is made up of small blocks of coloured light called pixels .in others words ,pixel is the smallest unit of graphics of images.
- **Printer:** A printer is an output device that prints out information in the computer onto a paper.The output on paper is known as the hard copy. Printers are classified into different types based on their speed print quality.

- **Impact Printer:-** Impact printer use a print head containing a number of metal pins which strike on inked ribbon placed between the print head and paper. Due to this mechanical contact components there is a lot of noise while printing. Such printers have lower speed of printing .
  - **Chain printers:-** In chain printers,the characters are positioned in line on print chain. The chain or band is rotated at high speed. A magnetically driven hammer strikes the

character when it comes to its position and is printed. The number of hammers will equal to the number of characters per line.This can print upto 132 characters per line. The speeds lie in the range of 400-2400 lines per minute and have high noise levels.

- **Drum Printers:** In drum printers characters are embossed on a rotating cylindrical drum. Each line consist of a complete set of characters. The drum rotates at high speed and a magnetically driven hammer strikes the characters. The hammer strikes the ribbon and paper against the characters on the drum when it comes to the correct position. It is very noisy. The speed of printing lies in the range of 200-2000 lies per minute. These printers are expensive.
- **Dot Matrix Printer:** Dot Matrix printers are the most commonly used serial printers. As the name suggest characters are formed from a matrix of dots. The print head consists of an array pins in the form of matrix.

♦ **Non Impact printers:-** In non-impact printers there is no physical contact between the printing the print heads and the printing surface. So the printing is much quieter and almost noiseless.

- **Thermal Printer:-** Characters on thermal printer are formed when heated elements come in contact with special heat sensitive paper. They form darkened dots when the elements reach a critical temperature. Each character is formed by a series dots.
- **Inkjet Printer:**- Inkjet printers characters are formed by fine jets of ink drops. The ink drops are electrically charged or heated produce high resolution dot matrix characters to the quality of up to 400 dots per inch or 400dpi.
- **Laser printer:**- Laser printers are non-impact printers that use a laser beam technology and dry powdered ink for printing. It consists of a photoconductive drum that is completely charged initially. Then a high intensively laser beam is used to discharge selected area on the drum. These discharged area represent the white areas of the printed documents and the printed areas are the charged areas.

Speakers:

Speakers are the output device that gives sound output. They have a low-power internal amplifier. The Computer Speaker designed to be connected to computer system are small plastic boxes with mediocre sound quality. Some computer system have inbuilt speakers but these do not have good sound quality.

❖ Other Hardware:

♦ **Modem:**

A special device called MODEM (Modulator and Demodulator) is used to carry out the process of modulation and demodulation (conversion of digital data to analog from and vice-versa). Hence when an analog facility is used for data communication between two digital devices (say two computers interconnected by a telephone line), two modems are required one near each device.

♦ **Video Card:**

A video card is used to display the data to the user. It is indirectly linked with the computer memory. Now a day, it is inbuilt in the motherboard. Two types of display cards are available. These are the PCI graphics card and AGP card.

- **Sound Card:**
  This card allows you play sound and music. The Sound card converts the digital information into electrical signals that speakers use. When speaker is connected to the sound card, the sound card be head on the speaker.

UNIT:2 INTRODUCTION TO WINDOWS 2000/XP

Introduction:

Computer hardware is not capable of communication with you/we directly and therefore needs a communicating medium to understand your commands. Such a medium is called an operating system. An operating system controls the overall working of our computer. It helps us to manage files and check the various peripheral device. Such as printer, monitor, and mouse. Some popular operating system are Windows xp, windows 7/8/10, UNIX and Linux. There are main two types of operating system-GUI(Graphical User interface) and CUI(Character/Command user interface).

Windows XP is the GUI based operating system which is developed by Microsoft company. It is launched on 25 October 2001. XP in windows stands for eXPerience. Before installing any operating system , we required some essential hardware components. For installing XP, We need following hardware:-

1. A minimum of 128MB RAM, although 256MB is preferred. Windows XP can handle a maximum of 4GB.
2. 533 Megahertz (MHz) Pentium III or equivalent microprocessor.
3. A 40GB or large hard disk with at least 650 MB free space available.
4. A VGA Monitor.
5. A Keyboard
6. A mouse or compatible pointing device.
7. A CD-ROM or DVD Drive.

Desktop:

The first screen that appears after switching ON our computer is called the Desktop, which consist of various graphical components that allow easy access to the various graphical components that allow easy access to the various features and programs installed in our computer.

Getting Familiar with desktop:

Windows XP Desktop is GUI based. The Component of desktop discussed under here:-

Icons: It refers to graphics that are present on the desktop. An icon represents a particular program or folder. For example, My computer icon provides access to the various drives such as Local Disk: C,D etc.

My Computer icon: Allows us to view the files, folder,drives and other tools in our system

Recycle Bin icon: Allows us to store deleted files and recover them later, if required.

My Network Place icon: Helps us to view all the shared files and folders or different users in a local network.

Taskbar: It refers to the bar that is present at the bottom of the windows XP desktop.In addition to displaying the buttons of the currently open
programs, Taskbar also displays information, such as
time/date, on the right hand side.

Taskbar: It refers to the bar that is present at the bottom of the windows XP desktop.In addition to displaying the buttons of the currently open programs, Taskbar also displays information, such as time/date, on the right hand side.

Start: It refers to the button present on the extreme left hand side of the Taskbar. The Start button provides us with a list of various program installed in our computer.

Figure:-Icon

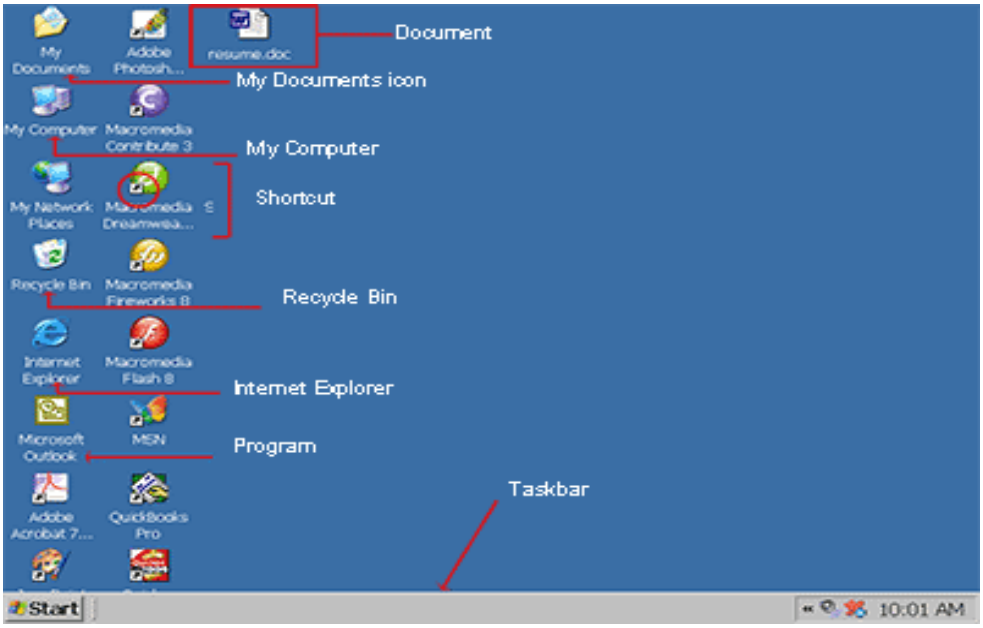


Figure:-windows Xp Desktop

Starting Windows:

- Opening an program or application from desktop icons(e.g My Computer)
  To Start program using desktop icon we follow the following steps:-
  1. Place the mouse pointer (↖) over the My computer(Sometimes Computer,This Pc).

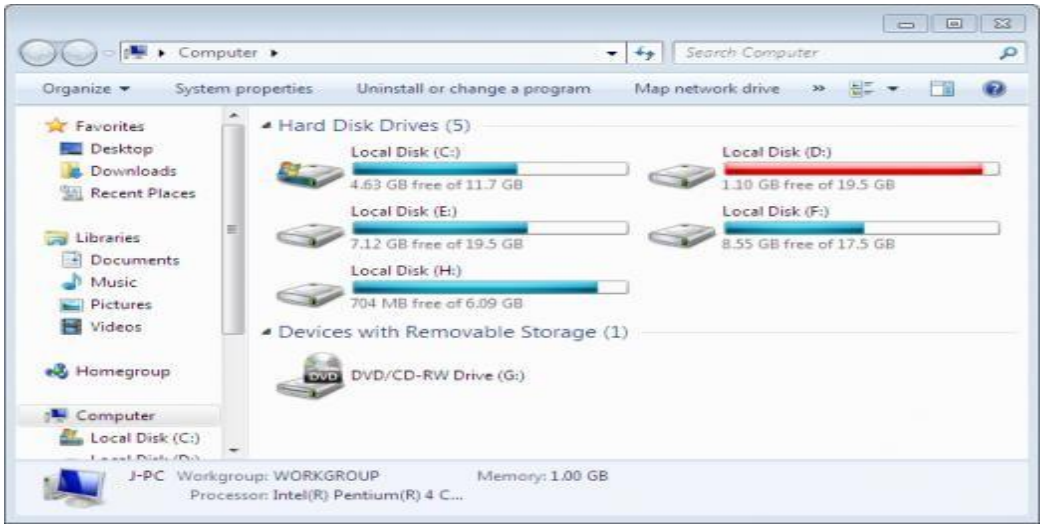


Figure:-My Computer Windows

2. Double Click the My Computer icon.
3. Instantly,My computer icon opens into a windows. This display several icons which represents the disk drives and other important tools.

- **Starting Program through the Start Button:**

An addition advantage of the start button is that you can use it while working on another program. It allows you to quickly start a new program without closing or minimizing the currently opened program. Perform the following steps to open notpad program through start button.

Figure:-Starting notepad program through start button.

1. Place the mouse pointer over start button present on the taskbar and click.
2. Place the mouse on the **All program** options in the start menu to open the **Notepad** program.After the sub menu gets displayed offering a few more options.
3. Place the mouse-pointer on the **Accessories** option in the sub menu. Another sub menu gets displayed.
4. Move the mouse-pointer downwards and place it over **Notepad** option and click on it. The notepad program opens into a windows on the screen and gets displayed.

Working With Window:

In Computer, Windows Explorer is used to store files or folders. Each folder contains number of files. And each file contains information. In this section, We will learn about working with window(Window Explorer). There are following Steps to open Windows Explorer.

1. Place the mouse pointer on the windows explorer icon.
2. Click the left button of mouse and highlight the opened window of windows explorer. Now, We click can do these following using windows explorers as give below.
    1) Opening of file or folder.
    2) Closing of file or folder.
    3) Creating New file or folder.
    4) Copying a file or folder.
    5) Rename a file.
    6) Posting file or folder.
    7) Moving file or folder.
    8) Delete file or folders.

    Before doing all above work you have to select the desired files or folders.

Component of Window:

There are following main components of any window:

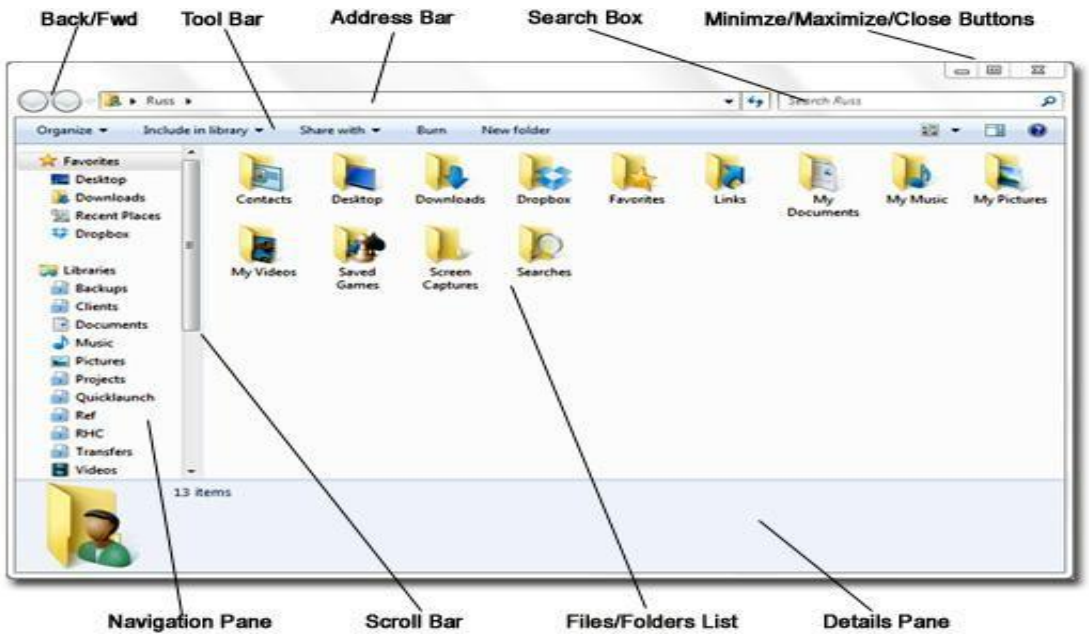


Figure:-Components of Computer Window.

- **Window name**:- This unit display the name of opened window.
- **Title bar**:- This unit show the title of any opened files or folder.
- **Control Button:-** This the common name for three button combindely. Minimize, Maximize, Maximize and close.
  - **I. Minimize Button(–):-** This button is used to hide the currently opened window to the taskbar.
  - **II. Maximize Button(□):-** This button is used to restore the hidden or minimized window to their actual size.
  - **III. Close Button(x):-** This button is used to close the currently opened window.

- **Standard tool bar:-** This section contain mainly following tools for navigation or basic job.
  1. **Previous:-** This tool is used to move backward. This is indicated by using left side arrow.
  2. **Next:**- This tool is used to move forward. This is indicated by using right side arrow.
  3. **Address bar:**- This section contain the address of file location of currently opened/selected files or folder.
  4. **Upward:**- This tool used move up to my computer.
  5. **Downward/Dropdpwn:**-This section contain the list of all files or folder of currently opened folders.
  6. **Search box:**- This section provides the searching facilities to search the content in selected or currently opened folder.
- **Navigation pane:-** This area contain the list of all folders, drives libraries and network places, Which makes easy to browse the desired file or folder in short.
- **Content area/Working area:-**This section display the contents of folders or drives. This section is also responsible for performing any job like copy, cut, paste on selected files or folders.

- **Status bar:-** This section displays the status of currently opened files or folders. For example:- total of items available. No of items selected.

Menu Bar Option:

Every window displays a menu bar just under the Title bar. This Menu bar contain the various menu such as file ,Edit, View, Favourites, and Tools. In windows7/8/10, almost every Menu bar contains File, Home,View, and Help.

File:- It is used to carry out file-related operations like Open existing file;the options available under here are as follows:-

New:- This option is used to create new folder in the selected drive or folder. We can do it by using following steps:-

1. Select the file menu on the menu bar of window explorer(Local Disk:C).
2. Move the mouse pointer to new option.
3. Move the mouse pointer to the folder option Which will be displayed as submenu or New option.
4. Click on the Folder option; the new folder will be created,

Edit:-It is used to perform the editing operation such as cut, copy and paste.

View:- It is used to change the appearance of a window.

Help:- It provides information on various topics or features related to windows Xp.

Moving From One Window to another:

We can open a number of windows simultaneously on our computer screen and easily move from one window to another. In other words, all opened windows are accessible. We can work in only one window at a time. The window in which we work is called an Active Window. The Title bar of an active window is always highlighted while those of other opened windows are disabled. The taskbar display buttons for all opened windows. In the taskbar shows button for both My Computer and Notepad windows. To move from one window to another follow following Steps:-

1) Move the Mouse- Pointer over the My computer button present on the Taskbar.
2) Click on it. The My computer window becomes active and its Title bar is highlighted.

We can make the notepad window appears over the My computer window . Instantly, the Notepad Window appears over the My computer window.

Reverting Windows to its previous Size :

Reverting a window to its original size from the maximized size is called Restoring a window.We can use the Restore button(□) to bring it back to its original size by performing the following Steps:-

1) Move the mouse pointer to the Title bar of the My computer window and place it over the restore button.
2) Press the mouse left button just once. The My Computer reverts to its original Size.

Creating Shortcut of Program:

A Shortcut is basically a quick link to a program file, or Folder that is located at different place. We can create a shortcut icon on our desktop by following below given Steps:-

1) Place Mouse pointer anywhere in the free space of the desktop of windows Xp and click the right mouse button.
2) Place the mouse- Pointer over The New option inside the shortcut menu. A sub-menu appears on the screen.
3) Place mouse pointer over the shortcut option in the sub- menu, and click. The Create Shortcut dialog box opens on the screen.
4) Place the mouse pointer over the Browse button in the create Shortcut dialog box and click. The Browse for folder dialog box opens on your Desktop.
5) Now search the Notepad program (Notepad Icon) that resides in the windows folder or the Local Disk(C) folder in My computer with the help of Browse for folder dialog box.
6) Select Notepad Icon and follow the shortcut Dialog box steps and at last click on finish button. Before finishing give the title for program(Notepad).

Or

1) Select any program of which you want to Create Shortcut program.
2) Copy the Selected item by pressing Ctrl+C.
3) Move mouse pointer to the bank are of desktop and right click on there.
4) Chose paste as shortcut from opened menu.

Quitting Windows:

Perform the following Steps to close the My computer and the notepad Windows.

1) Click the Title bar of the My computer window to make it active window.
2) Move the mouse - Pointer over the close button on the Title bar of the My computer window.
3) Press the left mouse button. The My computer window will be closed.

UNIT:3 GUI BASED EDITING,SPREAD SHEETS,TABLES&PRESENTATION

Introduction

In our daily life we need computer to make our work easier. Because computer can work fast with more accuracy. According to our requirement many application are available in market through which we can complete our work in easy way. For example Microsoft Office and for same purpose openoffice.org, AutoCAD,MediaPlayer and many more.

Application Using MS Office 2000 & Open Office.Org:

There are several application are packed together under a single name for different purpose called office suite. Office suite by the Microsoft Company is called Ms-Office, and Office suite by Apache Company is called Open office.org. it is free of cost for any one. While MS office is purchasable. There are many versions have already come in market with their different features like Ms Office 2003/7/10/13/16.

The list Ms Office's 2000 application are as follow:-

I. Microsoft Office Word 2000
II. Microsoft Office Excel 2000
III. Microsoft Office Presentation 2000
IV. Microsoft Office Access 2000
V. Microsoft Office Publisher 2000
VI. Microsoft Office Outlook 2000
VII. Microsoft Office Info path 2000
VIII. Microsoft Office OneNote 2000
IX. Microsoft Office Picture Manager 2000

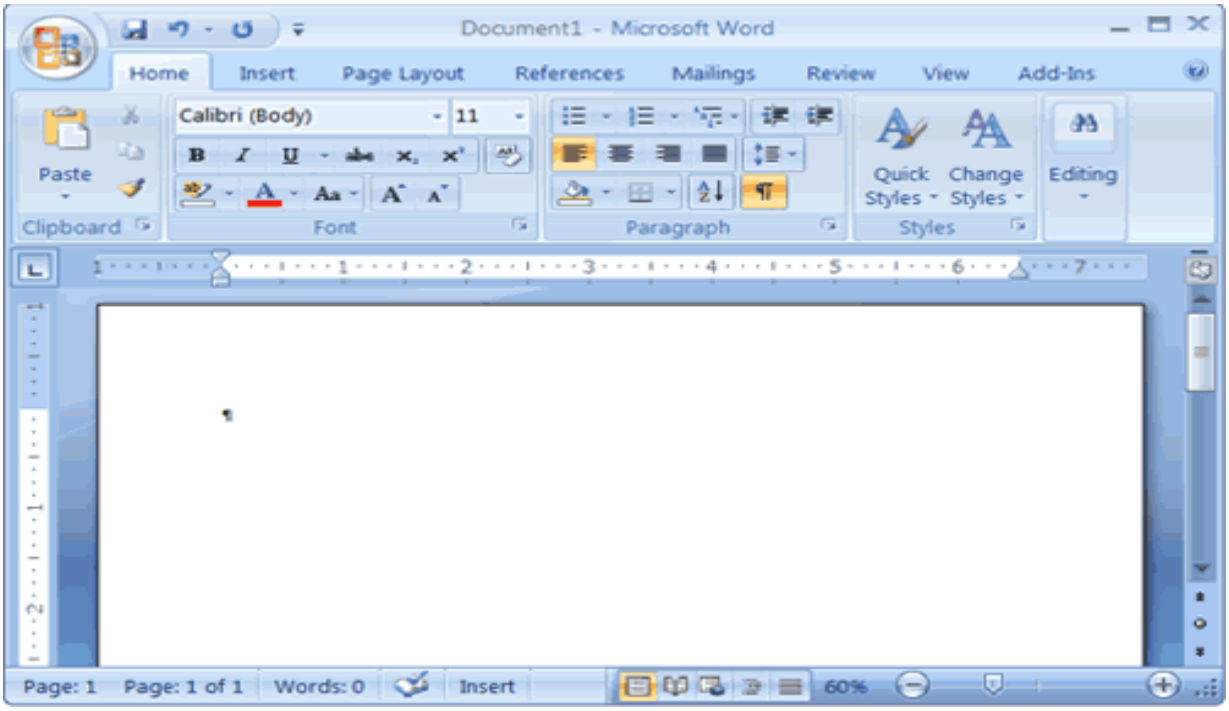


Figure : Layout of Microsoft Office Word

Menu:

There are Several menu are available for each application but some application have different menu and almost all application have some common menus like File, Edit, Format, Table, tool, insert, Window and Help.

File:-It is used to carry out file-related operations like open existing file; the options available under here are as follows:- New, Open, Close, Save, Save As, Print and File search etc.

Edit:-It is used to perform the editing operation such as cut, Copy Paste etc**.**

View:-It is used to change the appearance of a window as well as it is used to show/hide the other tools like Ruler.

Insert:-It is used to insert the page Break, page number, date and time etc.

Format:-It is used to format the text, paragraph like border etc.

Help:-It provides information on various topics or features related to windows XP.

Tools:- It contain the tools like word count, Macro, and AutoCorrect

Window:- It used to perform the task related to window.

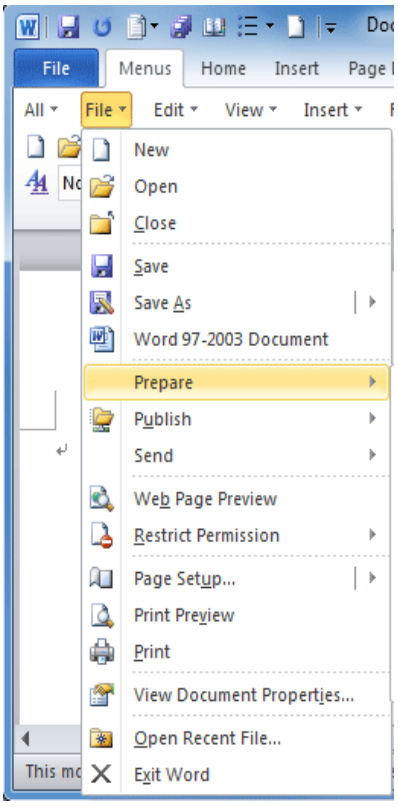


Figure: File menu

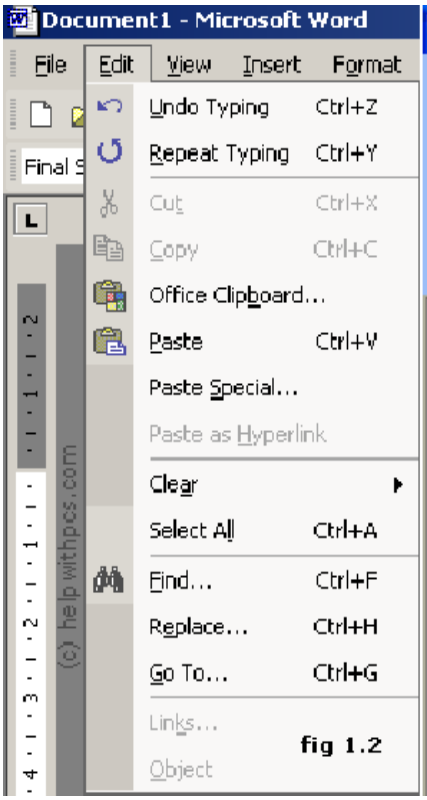


Figure: Edit menu

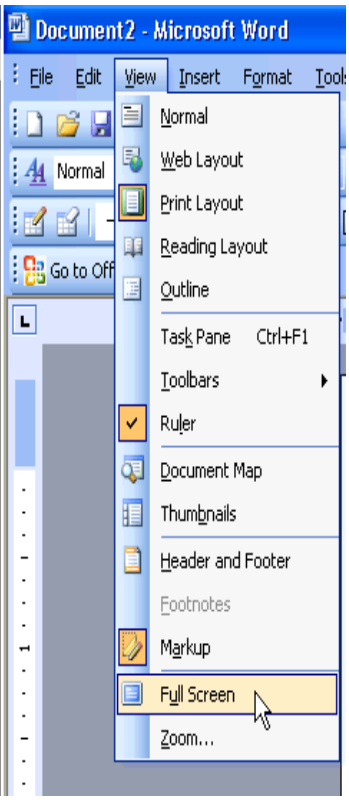
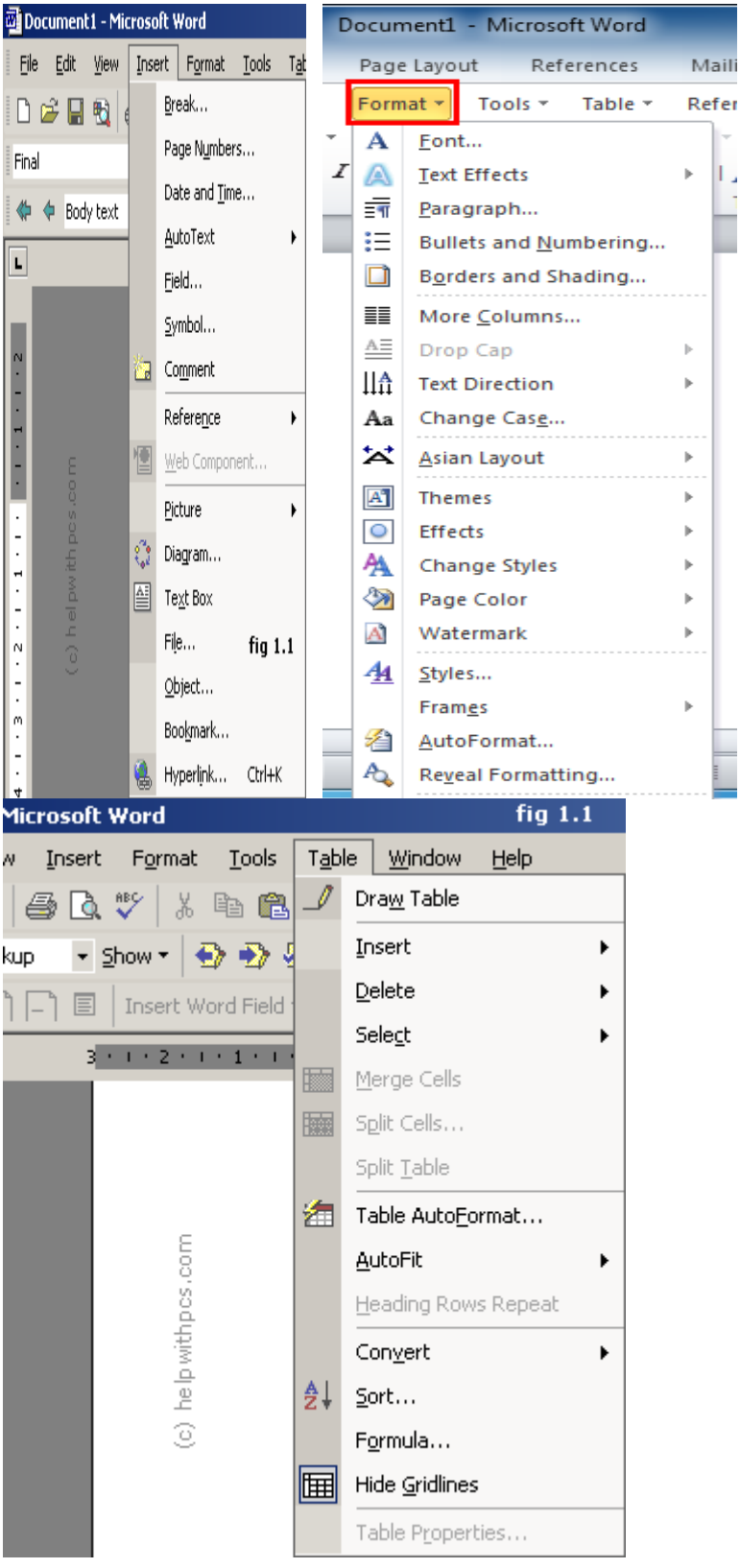


Figure: View menu



Opening of Menu, Toolbars, Standard toolbars, Formatting toolbars:

Any Menu Can be Opened in the following ways:-

Method 1

Step 1: Move mouse pointer over the Menu tab of which you want to open the submenu.

Step 2: Click on Menu tab like file.

Step 3: Highlight the opened submenu.

Method 2

Step 1: Click on the Blank area of open window press Alt button from the keyboard.

Step 2: Press highlighted button on keyboard.

Step3 : Highlight the opened submenu.

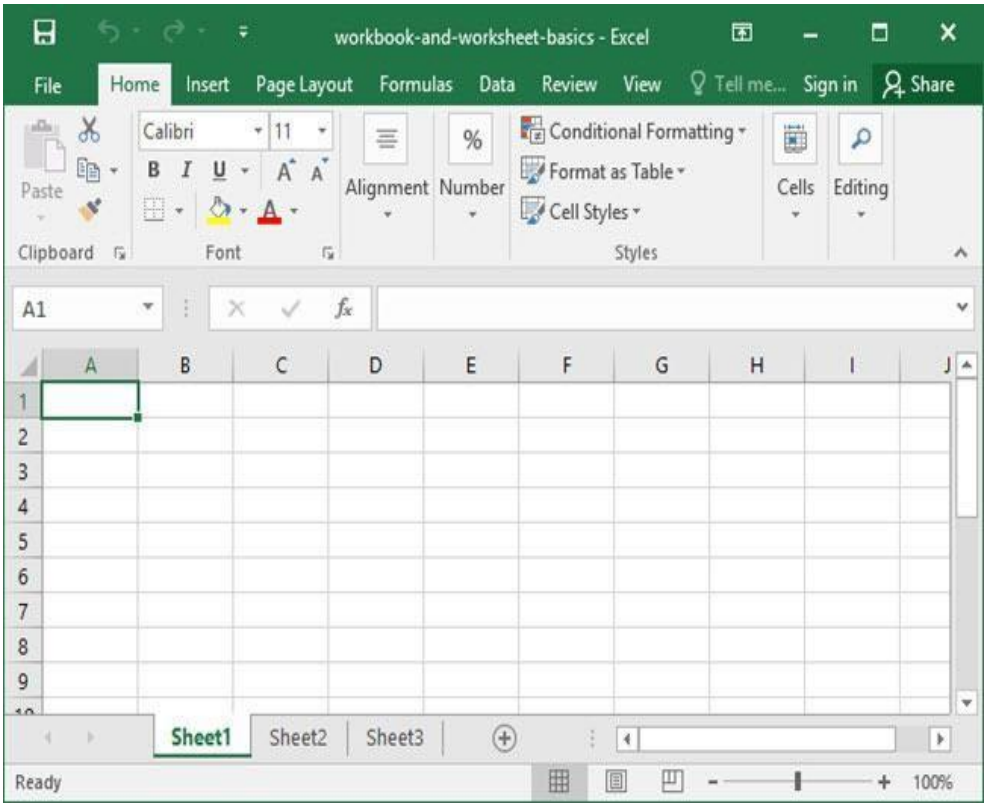


Figure – Excel workbook

Toolbar : Toolbar is a ribbon containing several tools. There are several toolbar available Some of them are as follows Standard toolbar, Formatting toolbar and Table and borders toolbar etc

Standard toolbar:

The Standard toolbar contains most commonly used functions such as open, Save,, Print, undo and redo etc.

Standard toolbar can be opened using following steps:

Step 1: Move mouse pointing over the view menu and click on it.

Step 2: Move mouse pointing and place over Toolbar options.

Step 3: Highlight Submenu of Toolbar options and click on Standard Toolbar option.

Formatting toolbar :

It is used to basic formatting such as changing the style of text, changing font, its size and alignment etc.

Formatting toolbar can be opened using following steps:-

Step 1: Move mouse pointer over the view menu and click on it.

Step 2: move mouse pointer and place over Toolbar options.

Step 3: Highlight submenu of toolbar options and click on Formatting Toolbar option.

Closing of Menu, Quitting Document, Editing & Designing Your document Starting Window

Closing of Menu

We can close any opened menu simply by clicking on the blank area of document. Or by Pressing **Esc** key on the Keyboard.

Quitting Document

To quit document We can following steps:-

Step 1: Click on File menu.

Step 2: Highlight opened submenu of File menu.

Step 3: Click on Close button, before it make sure You have saved the opened document otherwise Press Ctrl+S. Or click on (X) button on the top right most corner of the document.

Editing and Designing Document

To edit the exiting document use the following steps:-

Step 1: Open exiting document.

Step 2: Place cursor where you want to make changes or editing.

Step 3: Edit the document as your need.

Step 4: Click on Format menu and select 'Border and Shading' Option.

Step 5: Highlight 'Border and Shading' Option and choose page border style as you want.

Step 6: Click On 'Ok' button after selecting of page border style.

Step 7: Highlight the border on page.

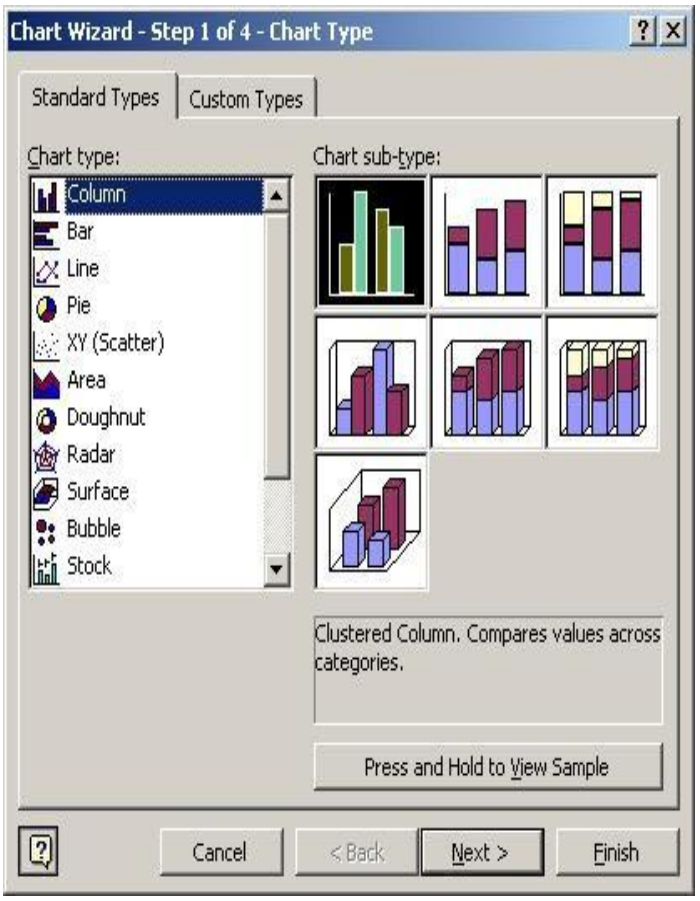
Step 8: Press Ctrl+S to save the document after editing and designing of document.

Spread Sheets

Microsoft Excel 2000 offers a variety of features designed to help you collaborate and share information through the web to perform more extensive analysis of your data.This version of excel is also easier to manage and use than ever before.

- Web-enabled collaboration and information sharing. Excel 2000 allows you to create and share rich web documents with the same Office tools you use to create printed documents.

- Drag and drop.Excel 2000 also supports the drag and drop of table data from a web browser directly into excel.
- HTML as companion file formate.Excel 2000 can save to and read from HTML files with high fidelity.HTML is now on the same level as the Excel file formate (.xlx).
- New data formats.Custom data entry behaviour and static data function behavior give you more option for working with dates and excel 2000 is year 2000 compliant.
- List AutoFill.Excel 2000 automatically extends formatting and formulas in lists,simplifying this common task and helping you work more efficiently.



Working & Manipulating data With Excel, Changing Layout

A Worksheet is an effective tool for keeping track of all sorts of data. You can track student attendance, book you have read and their authors, a check register, a list of major purchases and the amounts or student organization trips you have gone on and their dates and costs. If students are tracking and type of data, them creating a worksheet can help those students easily manage the information.

Entering data into the Excel Spreatsheet

To enter data into the spreadsheet use the following steps.

Step1: Open Excel workbook. **Figure- Chart Wizard Dialog**

Step2: Click on desired cell where you Want to enter data.

Step3: Start typing the content/data into the cell where cursor blinks.

Step4: press TAB Button or shift + Tab on keyboard for moving from one cell to another rightward and leftward respectively.

Step5: Use Ctrl+S shortcut key for saving the currently opened documents.

Note:- To Use formula in Excel sheets first you must type the'='sign

Use the following steps to select the data into the excel spread sheet-

Step1: Click on desired cell from Where you want to select the data,

Step2: Press Shift key on keyboard and use arrow key(left,right, Up and Down) as need.

Step3: See the Highlighted cell on Spreadsheet with colour.

Changing layout of Spreadsheet or worksheet.

Step1: Open Microsoft Excel 2003.

Step2: Click on View menu to change the layout of the spreadsheet

Step3: Click on page break preview(Page layout).

Step4: Highlight the changed layout of spreadsheet.

Working With Simple Graphs & Presentation-

Presenting information in chart can be a very effective way of communication numerical data that otherwise might be too confusing or complicated. Since most people are highly visual a chart added to text can really catch the audience's attention and help to information and persuade them more thoroughly.

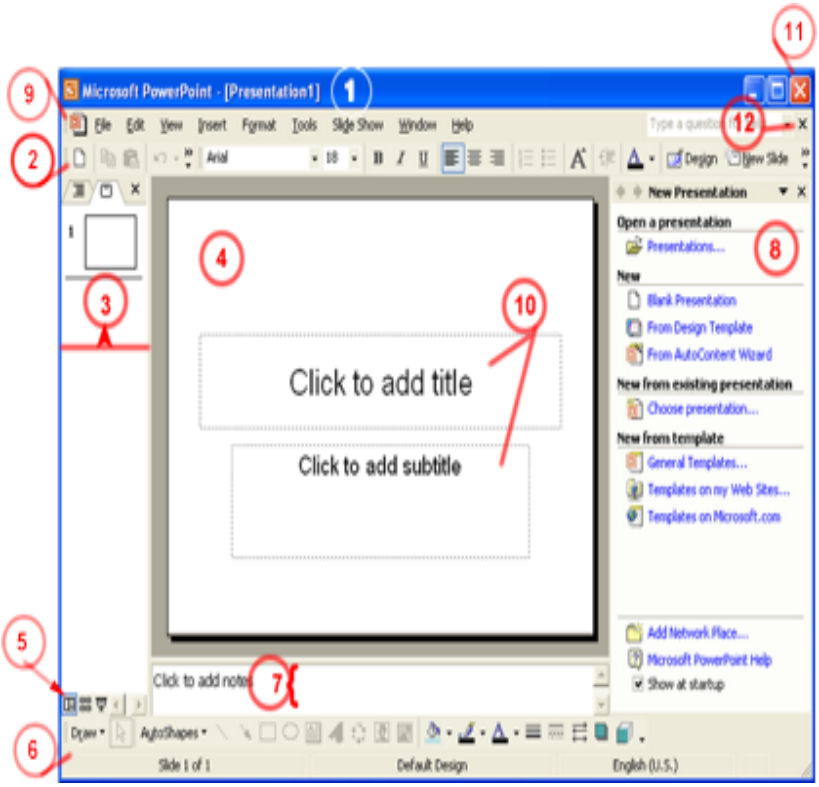
To use chart wizard follow the following steps-

1. Open the excel workbook and type data for student's make obtained in examination.
2. Select the marks of students with subject name.
3. On the standard toolbar ,click on chart wizard option.
4. In chart Wizard dialog box,click on column type of chart appears in 'Standard types 'tab. **Figure- Microsoft powerpoint**
5. In chart sub-type,click on clustered column with a 3-D visual effects.
6. Click press and hold to view sample to see a sample of your data in the cluster column 3D formet.
7. Follow steps by clicking on next button, and file necessary columns as you want.
8. Click the Gridlines tab to select type of lines to show on your graph (use minor gridlines for x and y axes respectively)
9. Click on Finish button to complete the chart process.

Working With Power Point and Presentation

Power poin presentation helps to create and organize presentation by assisting in developing presentations outlines and selecting various slide layouts. Using powerpoint presentation template we can quickly and easy create presentation for many purposes, including lecturers, research, report, meeting handouts and agendas etc.

The page of PowerPoint presentation is called slide. By default slide will appear in normal view. The input box given for entering title and sub title of documents is called placeholder.



To Start MS- PowerPoint follow the Following Steps:-

Step1: Click on start button.

Step2: Select All programs and click on Microsoft Office 2000.

Step3: Click on MICROSOFT Office2000 and click on Microsoft PowerPoint.

Menu:- There are several menus are available in MS-powerpoint presentation such as File,Edit, View,Insert, Formet, Tool, Slide Show, Windows and Help.

Creating a new Powerpoint Presentation :

To create a new presentation We can follow given steps:-

Step1: Open PowerPoint application.

Step2: Click on format menu select slide Desgin.

Step3: Choose Slide design from opened gallery of design.

Step4: Highlight the selected Slide design and give title in title placeholder and content in sub title placeholder.

Step5: Press F5 button on keyboard to view the slide in large screen

Adding animation in slide:

Use the following Steps to add the animation on text, graphics etc.

Step1: Select the object on which you want to apply the animation.

Step2: Click on Slide show menu and select custom animation option.

Step3: Highlight custom animation option opened in the right area of slide and click on Add Effect option.

Step4: Choose pre-given effect or click on more button for viewing more animation effect type in each category (Entrance, Exit, Emphasis and Motion path).

Step5: Click any of them to preview the effect and finally click on OK button to apply the effect.

UNIT:4 INTRODUCTION TO INTERNET

INTERNET:-

A System of interconnection computers is called **computer network** and the **internet** interconnects millions of computers providing a global communication storage and computation infrastructure. The internet is a collection of computers all over the world that exchange information. The internet is at its base a computer network. A network is simply one or more computers connected together so they can exchange information.

The Way that computers exchange information is a group of rules called protocols. All data is exchanged according to the same rules even through each computer or computer network uses different technologies.

Networking:-

Communication is beneficial for the human race. By communicating with one another information can be shared – past experiences current affairs predication of the future – from here, there and every where. Also resources and expertise can be shared by communicating with the right people.

A computer network consist of two more computing devices that are connected in other to share the components of your network and the information you store there.There are different types of devise and components are used to maintain the internet connection and computer networking such as routers, network adaptors bridge and switch etc.

Services on internet:-

There are several services are available over the internet. By using basically We can do mailing discussion groups, online communication and file transfer. Internet ,mail or Electronic mail is much faster as compared to normal postal mail. You can also send software and certain forms of compressed digital images as an attachment. There are several tools and services available for online chatting email, social networking,formus etc. Other services by internet are communication services information retrieval services, web services and world wide web.

Equipment Required for Internet Connection:

Before We can access the internet we need mainly three things:-

1. Internet Service provider(ISP)
2. Modem
3. Router
4. Web browse

Internet Service Provider(ISP):- An internet service provider is the industry term form the company that is able to provide you with access to internet ,typically from a computer. An ISP is your gateway to the internet and everything else you can do online. ISP is the link between your computer and the other entire “server” on the internet

Modem:- Basically whenever we want to connect with internet then we need a device which can convert digital data into analog data and vice- versa and this type of device is called modem. We need different type of modem according to our internet connection or ISP.

Router:- A router is a hardware device that allow you connect several computers and other hardware to a single internet connection, which is known as home network. Many routers are wireless, allowing you to easily create.

Web Browser:- Web browser is the application interface that displays the webpage over the internet connection.it recognizes the HTML tags and formats the webpage.Each webpage may contain text, image, audio, video. To fetch the webpage from webserver to the client computer system, We need a interface or application software called web browser. Google chrome, Opera mini, Mozilla Firefox, and Internet explorer are some popular webbrowser.

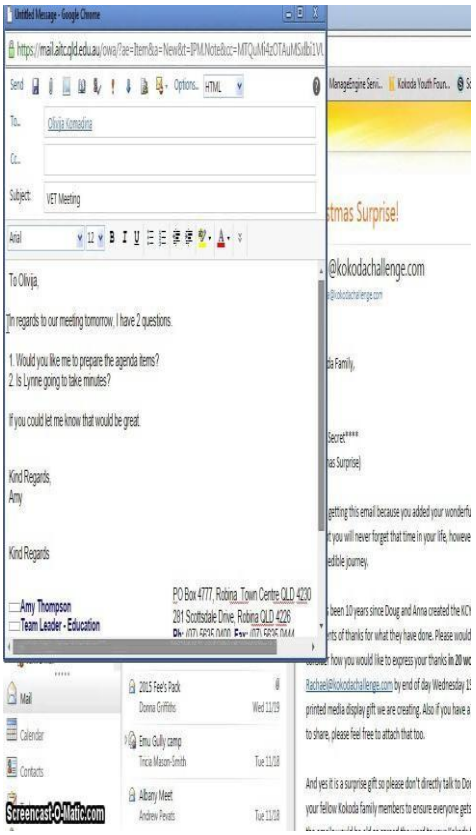


Figure – structure of email

E-Mail:

Email is like sending a latter only you send the message over the internet and it gets to the other person's email account within seconds.Email is a short word for electronic mail.

Gmail:-

Gmail is a free email service provided by Google. In many ways, Gmail is like any other email service: you can send and receive emails,block spam, create an address book, and perform other basic email tasks. But it also has some more unique features that help to make it one of the most popular email service on the web.

To create Account:

1. Go to www.gmail.com
2. Click create an account.
3. The signup from will apper. Follow the direction and enter the required information. Such as your name, birthdate, and gender.
4. Finally review Google's term of service and privacy click the check box, then click Next step.
5. The Create your profile page will appear. Click Add a photo if you want to add a photo to your Google profile or you don't click next button.
6. Your account Will created and the google welcome page will appear.

Sending and Receiving E-Mails

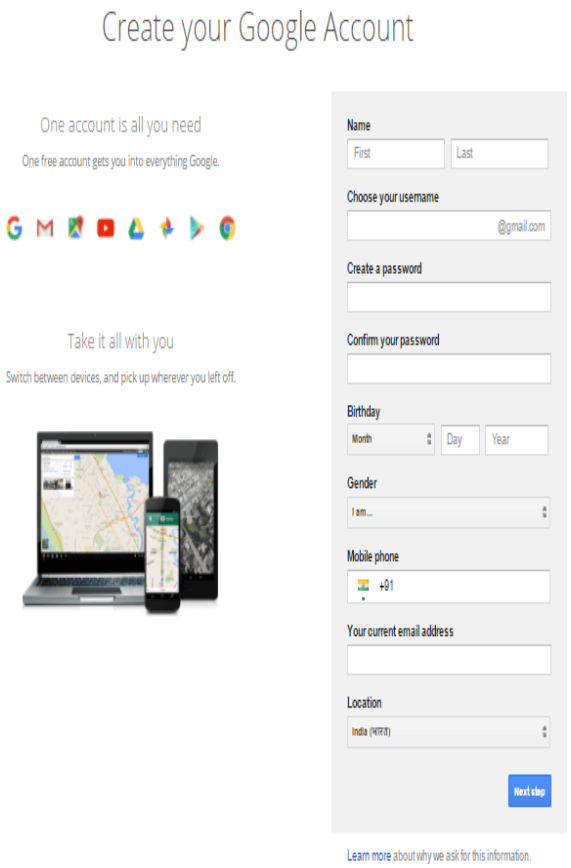
Before sending and receiving a email first of all we should know the some point and elements of email which is mentioned below. There are five part in e-mail message.

i. E-mail address
ii. Header
iii. Body
iv. Signature(Optional)
v. Attachments(optional)

E-mail Addressing
Figure- syntax for e-mai address

It is important to understand and follow the e-mail addressing scheme for the internet to ensure proper delivery of all outgoing messages. An e-mail address is composed of two separate parts.

- The domain name of the mail server computer on which you have an e-mail account.
- Your personal identity or account name (username) on that mail server



Header:- The Header of an e-mail message is the uppermost section. It displays information regarding the status of the message. A header records message information and provides it to the recipients of message. Header are presents in both outgoing(sent) and incomeing(received)message. The principal header fields are listed.

Body:- The body of e-mail is the primary focus because it contains the actual message. Although there is no limit to the size(number of characters) of an e-mail message many ISPs do limit the size of an e-mail message.

Figure- Create your gmail account

Signature:- Signature for an e-mail is the personal information which automatically appears at the bottom of the outgoing message. Use signature is optional.

Information in a signature block may include the following

a. Full Name
b. Job title/position

c. Organization name and division
d. Phone and Fax numbers
e. Physical Address
f. E-mail address
g. Website address(URL)

Attachments:- E-mail allows us to much a file to any e-mail message. Any file format such –word processing documents, Spreadsheet. Images, or video files can be attached to an e-mail message. File entire field as your need and after the write a letter or other information in body area.

After that click on 'send' button to send email.

Receiving mail:- To receive email click on inbox of email application. Type the keyword to search the email containing or highlight new email message on the top of inbox list. Before sending or receiving email make sure internet connection.

WWW(World Wide web)

World wide web(www) can be viewed as a huge distributed system consisting of millions of clients and servers for accessing linked documents. The WWW is essentially a huge client-server system with millions of servers distributed worldwide. Each server maintains a collection of documents; each document is stored as a file .A server accepts requests for fetching a document and transfers it to the client. In addition it can also accept requests for storing new documents.

The simplest way to refer to a document is by means of reference called a Uniform Resource locator(URL). A URL is comparable to an IOR in CORBA and a contact address in Globe.

An internet-based system that enables an individual or a company to publish itself to the entire world, except to countries or locations that prohibit the free interchange of information. The major service on the internet the web is the world's largest online shopping mall and the world's largest source of information news and commentary.

HTTP:- HTML pages are transmitted to the user via the HTTP protocol. A web server stores HTML pages for a web site but it can also be a storehouse for any kind of files delivered to a client application via HTML.

A website required three things:

- A domain Name
- A webhost (including DNS)
- Webpages (coded pages)

UNIT:5 USAGE OF COMPUTER SYSTEM IN VARIOUS DOMAIN

Computer Application in Various Fields:

Computers have become an essential part of modem human life. It makes our work easier and faster.so there are many uses of computer in different fields of work like in office , book publication , Data analysis,accounting, investment, inventory control, graphics, database management, instrumentation, airline and railway, ticket, reservation, robotics, artificial intelligence, military, banks, design and manufacturing etc.

- **In Office**
  Computer is used in the office to maintain the file, record or employee, schedule the meeting, to make the presentation of project etc. By using computer, office staff can perform their task in minimum time and smoothly. It helps to generate the salary sheet of employee. Software used in office in mostly Microsoft office etc.
- **In Book Publication**
  Computer is used to write book and to design the cover of book. It is used to publish the book. By using computer. It's possible to develop the e-book. We can use computer to design the shape, figure, graph, table etc. By using computer we can create index of used words in book for quick search of. We can also provide different references of related topic and the description of complex word at end of page or document. Software used in publication are Coral Draw, Photoshop, PageMaker and MS office etc.
- **Data Analysis**
  Analysis of data is a process of inspecting, clearing, transforming and modelling data with the goal of discovering useful information, suggestion conclusions and supporting decision-making . Analysis refers to breaking a whole into its separate components form individual examination.
  A data produce is a computer application that takes data inputs and generates outputs. Using computer we can filter and sort the data as we need. There is software used for quality data analysis is called QDA software.
- **Graphics**
  Computer graphics are picture and movies created using computers- usually referring to image data created by a computer specifically with help from specialized graphical hardware and software. It is a vast and recent area in computer science. Computer graphics include user interface design, vector graphics, 3D modelling, shaders, GPU design, Geometry.
- **Accounting**
  Computers have become an important part of accounting because they make accounting processes faster and more accurate. Doing accounting manually takes a lot of time and involves many people, especially if the information to be processed in complex.
- **Military**

  The military without computers would be a far different place. Sure, we could use the tried and true method of Morse Code, but simply typing in a message an hitting 'send' is so much easier and faster, especially in actual combat situations.

When it comes to training the military, being able to communicate easily among groups is the key to learning how to work together. Also, use of computers in communication allows those specializing in military communication to get hands-on training in a real world setting.

- **Database Management Software**

  DBMS stands for **Database Management System**. We can break it like this DBMS = Database + Management System. Database is a collection of data and Management System is a set of programs to store and retrieve those data. Based on this we can define DBMS like this: DBMS is a collection of inter-related data and set of programs to store & access those data in an easy and effective manner. Here are the **DBMS notes** to help you learn database systems in a Systematic manner. Happy Learning!

UNIT:6 INFORMATION TECHNOLOGY FORBENEFITS OF COMMUNITY

Impact of Computer on Society:-

Information technology is the technology used to store, manipulate, distribute or create information. According to kathleen Guinee. 'Information technology is the tool that we use to perform calculation to store and manipulate data and to communicate'. And society can be define as "Community nation or broad grouping of people having common traditions, institution and collective activities and interests". There are following areas of impact of computer society.

- Personal Impact
- Community Impact
- National Impact
- Global Impact
- Future Impact

By using computer our works been complete in less time and efficiently with more accurate than human being.

Social Responsibilities :-

Social responsibility is an ethical framework and suggests that an entity, be it an organization or individual, has an obligation to act for the benefit of society at large. Social responsibility is a duty every individual has to perform so as to maintain a balance between the economy and the ecosystems. A trade-off may exist between economic development, in the material sense, and the welfare of the society and environment, though this has been challenged by many reports over the past decade Social responsibility means sustaining the equilibrium between the two. It pertains not only to business organizations but also to everyone whose any action impacts the environment.This responsibility can be passive, by avoiding engaging in socially harmful acts, or active, by performing activities that directly advance social goals. Social responsibility must be intergenerational since the actions of one generation have consequences on those following.

Application of IT :-

An application, or application program, is a software program that runs on your computer. Web browsers, e-mail programs, word processors, games, and utilities are all applications. The word "application" is used because each program has a specific application for the user. For example, a word processor can help a student create a research paper, while a video game can prevent the student from getting the paper done.

In contrast, system software consists of programs that run in the background, enabling applications to run. These programs include assemblers, compilers, file management tools, and the operating system itself. Applications are said to run on top of the system software, since the system software is made of of "low-level" programs. While system software is automatically installed with the operating

system, you can choose which applications you want to install and run on your computer.

Impact of IT:-

This paper attempts to clarify the impacts of information technology (IT) on accounting systems. The biggest impact IT has made on accounting is the ability of companies to develop and use computerized systems to track and record financial transactions. IT networks and computer systems have shortened the time needed by accountants to prepare and present financial information to management. This system allows companies to create individual reports quickly and easily for management decision making. Other capabilities of computerized accounting systems are: Increased Functionality, Improved Accuracy, Faster Processing, and Better External Reporting. Finally, this paper shed light on advantages and disadvantages of using information technology (IT) in accounting systems.

Ethics and Information Technology:-

Computers and information systems are used everywhere in society. New technologies are invaluable tools but they may have serious ethical consequences. The way an information technology tool affects sensitive issues has a direct impact on its effectiveness and usability. It may be difficult for users and stakeholders to adopt a computer system if they feel that its use violates important values and interests. To take advantage of a computer tool may not be easy in situations dominated by ethical conflicts. There is a great risk that expensive but necessary computer systems are abandoned because of scandals and conflicts. There is also a risk that ethically controversial systems are used suboptimally, that persons may get hurt, and that organizations may be damaged if they hesitate to use otherwise importand and necessary computer tools.

Future with information technology:-

The biggest challenge to IT in the future is security. Security could negatively impact connectivity to public networks. If these problems cannot be successfully addressed, I envision a time of closed, private networks and less information sharing. The risks now are so great and getting worse every day that we even see foreign governments toppling superpowers the way Russia toppled the US and put its puppet in charge because of weak controls and poor security.

Save Your time with Short Cut:-

Ctrl + A - Select All
Ctrl + B - Bold
Ctrl + C - Copy
Ctrl + D - Fill
Ctrl + F - Find
Ctrl + G - Find next instance of text
Ctrl + H - Replace
Ctrl + I - Italic
Ctrl + K - Insert a hyperlink
Ctrl + N - New workbook
Ctrl + O - Open

Ctrl + P - Print
Ctrl + R - Nothing right
Ctrl + S - Save
Ctrl + U - Underlined
Ctrl + V - Paste
Ctrl W - Close
Ctrl + X - Cut
Ctrl + Y - Repeat
Ctrl + Z - Cancel
F1 - Help
F2 - Edition
F3 - Paste the name
F4 - Repeat the last action
F4 - When entering a formula, switch between absolute / relative references
F5 - Goto
F6 - Next Pane
F7 - Spell Check
F8 - Extension of the mode
F9 - Recalculate all workbooks
F10 - Activate Menubar
F11 - New graph
F12 - Save As
Ctrl +: - Insert the current time
Ctrl +; - Insert the current date
Ctrl + "- Copy the value of the cell above
Ctrl + '- Copy the formula from the cell above
Shift - Offset Adjustment for Additional Functions in the Excel Menu
Shift + F1 - What is it?
Shift + F2 - Edit cell comment
Shift + F3 - Paste the function into the formula
Shift + F4 - Search Next
Shift + F5 - Find
Shift + F6 - Previous Panel
Shift + F8 - Add to the selection
Shift + F9 - Calculate the active worksheet
Shift + F10 - Popup menu display
Shift + F11 - New spreadsheet
Shift + F12 - Save
Ctrl + F3 - Set name
Ctrl + F4 - Close
Ctrl + F5 - XL, size of the restore window
Ctrl + F6 - Next Workbook Window
Shift + Ctrl + F6 - Previous Workbook Window
Ctrl + F7 - Move window
Ctrl + F8 - Resize Window
Ctrl + F9 - Minimize the workbook
Ctrl + F10 - Maximize or Restore Window
Ctrl + F11 - Inset 4.0 Macro sheet
Ctrl + F1 - Open File
Alt + F1 - Insert a graph
Alt + F2 - Save As

Alt + F8 - Macro dialog
Alt + F11 - Visual Basic Editor
Ctrl + Shift + F3 - Create a name using the names of row and column labels
Ctrl + Shift + F6 - Previous Window
Ctrl + Shift + F12 - Printing
Alt + Shift + F1 - New spreadsheet
Alt + Shift + F2 - Save
Alt + = - AutoSum
Ctrl + `- Toggle value / display of the formula
Ctrl + Shift + A - Insert the argument names in the formula
Alt + down arrow - automatic view list
Alt + '- Format Style Dialog
Ctrl + Shift + ~ - General Format

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