

K.C COLLEGE OF EDUCATION

B.Ed Ist Year

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Practical File

of

Critical Understanding
of ICT.

Submitted to :- Mr. Mukesh

Submitted by :- Ashima

University roll no. :- 1647806

WPS & CPU

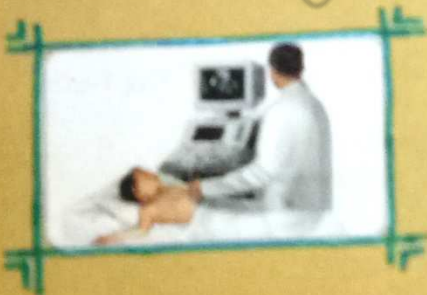
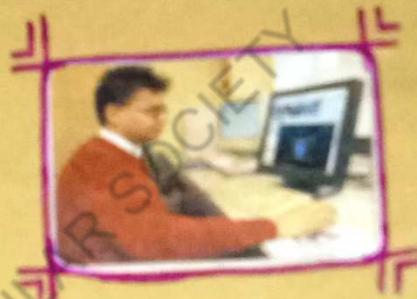
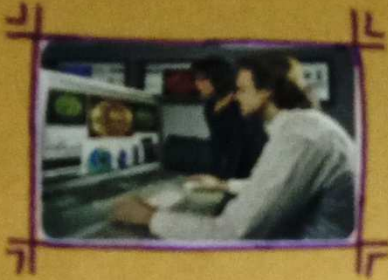
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Mukesh
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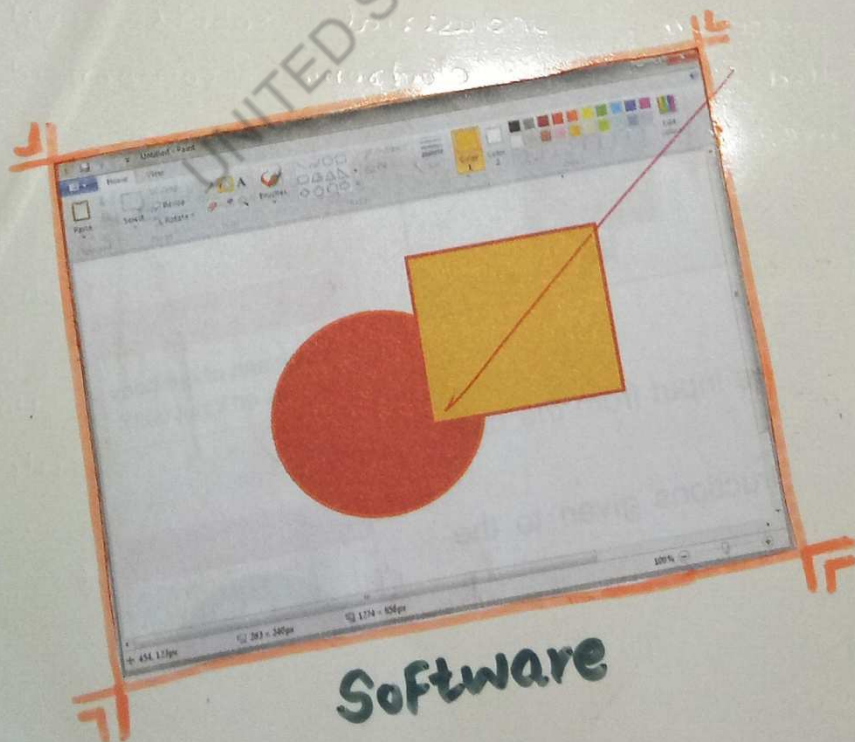
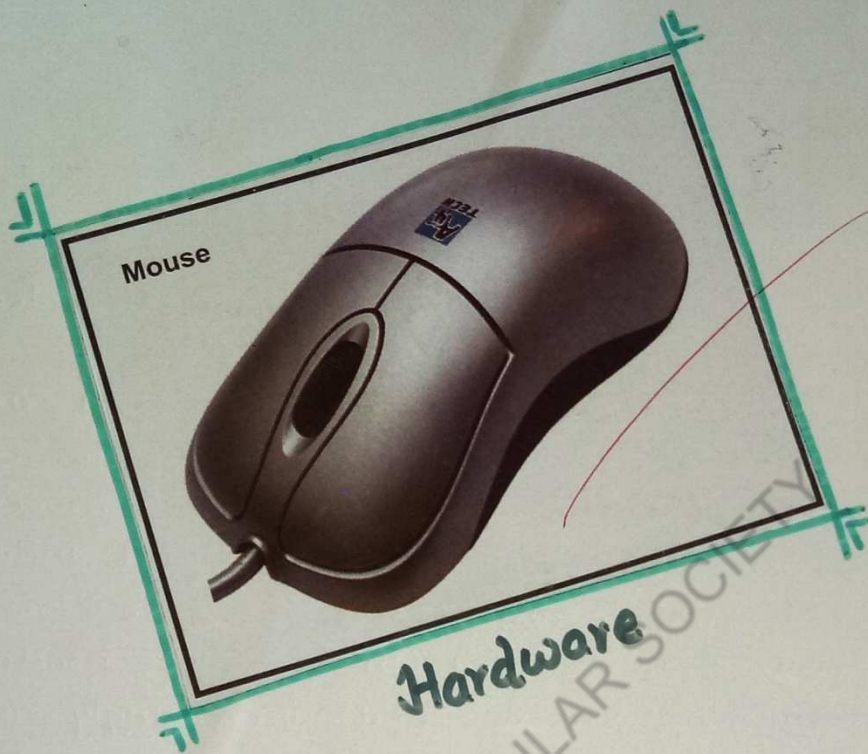


MEANING OF ICT



ICT :- Information and Communication Technology

- 1) OECD's view :- The term "Information and Communication Technology" is used to cover technologies used in the collection, processing and transmission of information. It includes micro-electronic and info-electronic based technologies incorporated in many products and production process and increasingly affected the service sector. It covers inter alia computers, electronic office equipment tele-communication, industrial robots and computer controlled machine, electronic component and software products.
- 2) UNESCO's view :- "Information and communication technology (ICT)" is scientific, technological and engineering disciplines and the management techniques used in information handling and processing their application computers and their interaction with man and machines and associated social, economical and cultural matters.



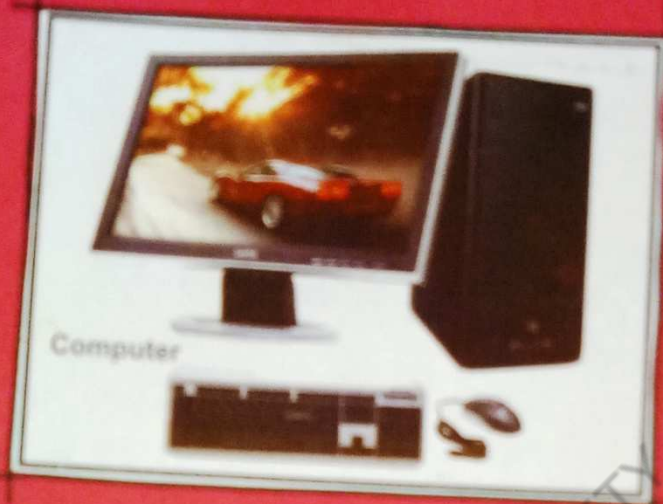
- 3) SMITH AND CAMPBELL'S view :- A mosaic of technologies, products and techniques have combined to provide new electronic dimensions to information management. This mosaic is known by the name of Information and Communication Technology.

Components of Information and Communication Technology

Hardware :- Hardware are there tangible components of a computer which one can see and feel. It includes input and output devices, central processing unit etc. These are the basic elements which makes computer a total machine which can process data and do many tasks.

Software :- Softwares are set of instructions or programmes which are given to computer so that it works and does the task. These are those tangible components of a computer which makes the tangible component work.

Data :- Data is the collection of facts and figures



Communication
Technology

This collection is the basis for decision-making.

Storage:- Storage enables the data and software component to make its place in the computer system by residing in various types of storage devices. The data storage components helps the raw as well as processed data to be stored for further usage. This component is also known as memory.

Communication :- Communication enables a user to communicate with the computer as well as the computer to get various tasks done. These can be taken as various communication lines and protocols which help to communicate.

Origin and development of Information and Communication Technology

Collecting and using information for the specific purpose is as old as the human society and civilisation. In primitive society there were no means and tools for recording information. The advanced technological development



facilitating the task of recording and storage of information and retrieval information is summarised as under.

Photography:- photography was invented by a French man Daguerre and an English man Talbot in 1849.

Photostat:- Abbe Renu Graffin of France invented photostat in 1990.

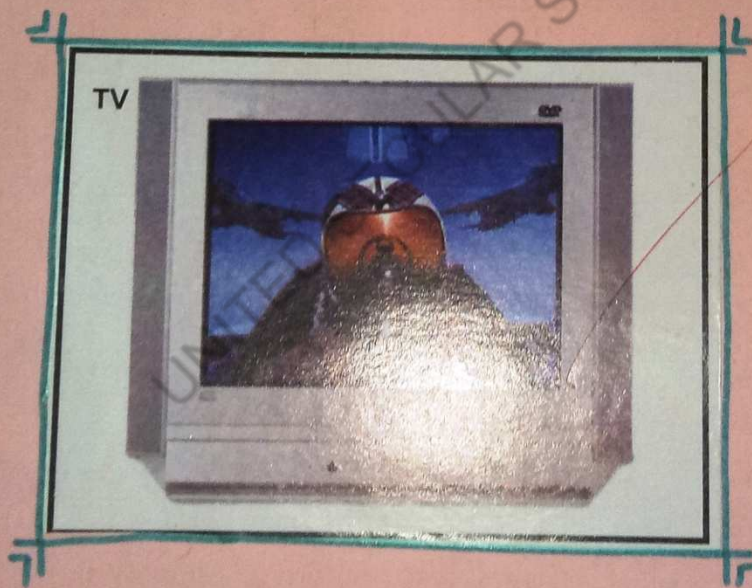
Xerography:- Chester Carlson of America invented Xerography in 1938.

Video Camera, Video disk and Computers:-

Magnetic Video Camera, Video disk and Computers were developed in twentieth century.

Beside advanced in the field of telecommunication technology made significant contribution in the evolution of information and communication technology. The following are the important landmarks in such development.

- 1) Telegraph:- In 1837, telegraph was invented by Morse of America.
- 2) Communication Satellites:- First satellite sputnik was launched by USSR in 1957. Cable and Fax technology were also invented in twentieth century.



Information and Communication
Technology

Objectives of Information and Communication Technology

- 1.) Formulating Information System :- An important objective of information and communication technology is to formulate the information system for scientific collection, storage and discrimination of information so that users can have easy access to scientific facts.
- 2.) Interpretation of Information :- To help the person in proper understanding and interpretation of the information in its true and original form is another important objective.
- 3.) Information Processing :- To assist the users in the information processing manually or with the help of computers.
- 4.) Using Information :- To help the users to make effective use of information for bringing desirable changes in the behaviour and developing their decision making problem solving abilities.

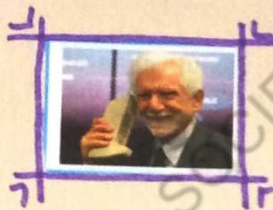
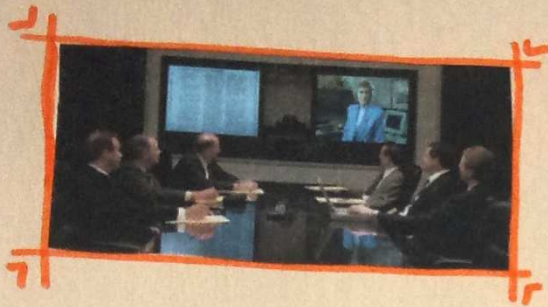
Slide Projector



Education Significance / Uses / Advantages / Importance of Information and Communications Technology in Education / Teaching Learning

Information and Communication technology is very useful in the field of education. It is useful for teachers, students, counsellors, educational administration and planners and researchers.

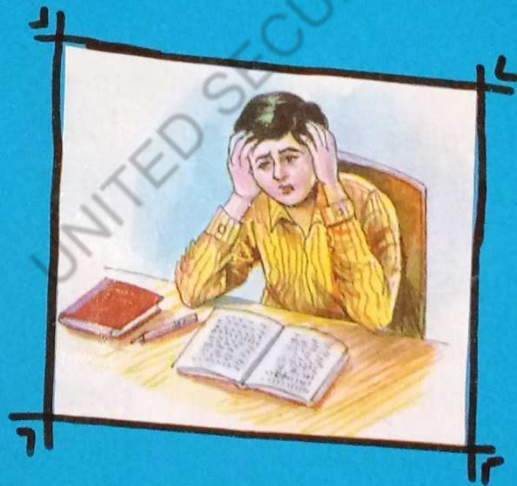
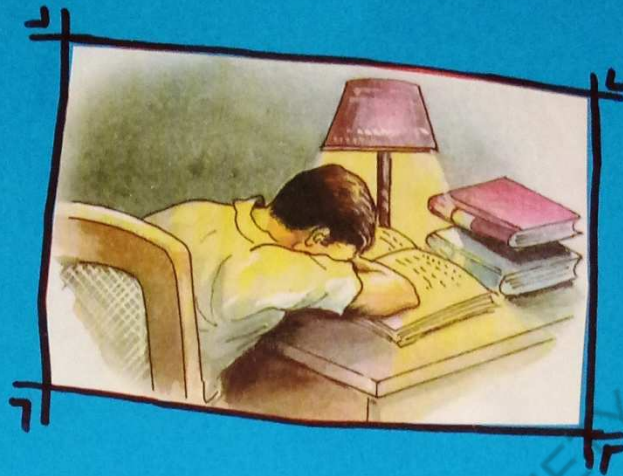
- Useful for teachers :- Information and communication in technology has proved very useful for the teachers. Services of information technology help the teachers in the realisation of teaching-learning objectives.
- Useful for students :- Information and communication technology provides opportunities to the students



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For receiving and using information for their self improvement. It helps them in sublimation of instinct of curiosity and construction.

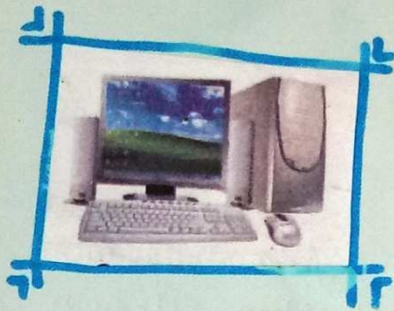
- Useful for Educational Administrators and Planners:-
Information and Communication technology helps the educational administrators and planners in the task of discharging their professional responsibilities in successful and effective manner.
- Critical and Reflective Learners:-
Information and communication technology can help in the process of transmitting of the students from the position of a mere knowledge seeker and knowledge getting individual to those who can think critically and creatively are able to reflect their own learning process and set their individual goals for the growth and development of their potentialities for being able to participate in an intelligent manner in the world in which we live.
- Preparing teachers For meeting Challenges:-
The use of information and communication technology has sufficient potentially for preparing the teachers for facing the challenges of the teaching - learning task of the modern Age.



- No Facility
- Reluctance of Teachers

Limitations in the use of Information and Communication Technology

- 1.) Ignorance:- There is much ignorance about the use, advantages and application drawn out of the information and communication technologies on the part of teachers, head of the institutions and educational authorities responsible for bringing improvement in the functioning of the school particularly related to teaching - learning and organisation of co-curricular activities with the help of such technologies.
- 2.) No facilities:- Information and communication technology facilities are not available in our schools. Most of the schools can not afford to the purchase, maintenance and other expenditure involved in the use of information and communication technology.
- 3.) Reluctance of teachers:- Teachers are reluctant to switch over to new methodologies and



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ways of teaching learning generated through the use and application of information and communication technologies.

Conclusion :- Despite certain limitations, we can not afford to neglect the use of information and communication technology in our schools as it can prove very useful in bringing the needed +ve changes in the educational system of our schools, teachers, educational authorities and policy makers should realise the importance of information and Communication technology for the bright future of education.

Information and Communication Technology Competencies for Teachers

we are living in the age of information and communication technology in managing the affairs of education. The use of Information and communication technology has great potential in preparing the teachers for facing various challenges

Laptop



DVD Player



and responsibilities to be fulfilled by them as a teacher in their respective schools. Needed information and communication technology competencies - desired knowledge, skills, attitude and interest are summarised as follows :-

- i) Competency in the use of personal computer, laptop and notebook.
- ii) Competency in the use of multimedia projector (LCD or DLP) to communicate with large group.
- iii) Competency in the use of digital video Camera.
- iv) Competency in the use of digital libraries.
- v) Competency in handling and making use of computer database and data processing mechanisms CD-ROM and DVD.
- vi) Competency in establishing and making use of language laboratories.
- vii) Competency in playing the role of learning facilitator knowledge, guide knowledge, navigator and active co-learner with the students in place of the traditional knowledge transmitter.



Audio and
Visual aids



Utilising Information and Communication Technology in schools

Information and communication technology can be properly utilized in our school for the effective teaching - learning by adopting the following measures:

• Establishment of an Information Centre:

Each school should have an information centre for the proper access to the needed information by the school personnel - the students, the teachers, the administrators and the counsellor etc. In this centre, information may be pooled and disseminated in the form of

- * Books, Reference books including journals and news items.
- * Audio - Visual aids
- * Micro - electronic resources like audio - tapes, video - tapes and films, micro - films, teaching machines and computers. The following suggestions are given for the effective functioning of this Centre.



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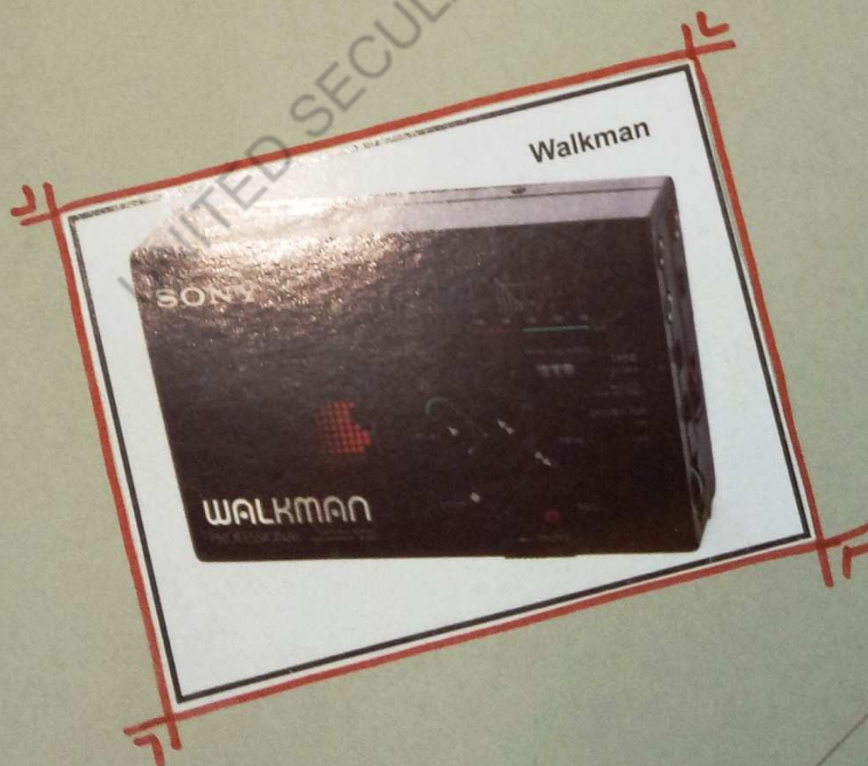
Collection
of
Information

- 1) Competent Manager:- There should be competent managers in the school information centre. A qualified librarian may be given the charge of the centre for the smooth conduct and management of the centre.
- 2) Collection of Information:- The information in the centre should be collected from all the available resources. Due recognition should be given to the information collected by the school personnel - students, teachers, head etc.
The centre should be linked with
 - * Information centre of other schools
 - * District information centres
 - * States and Regional information Centre
 - * National information centre
 - * International information Centre agencies
- 3) Information Network:- If feasible, the school information centre may be linked with information network. Computer telecommunication is the basis of information network.

• Adequate Training and Education of the Users :-

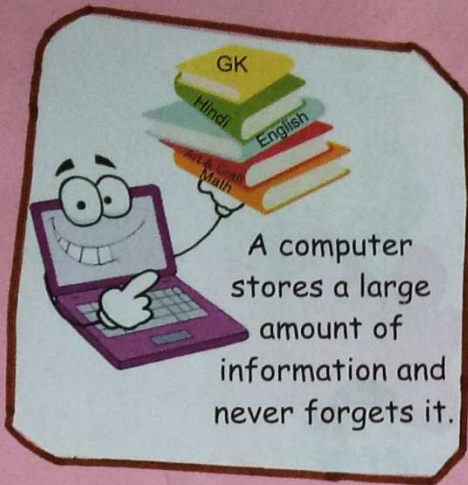
Information is the source of knowledge and understanding. It helps in bringing changes in learners' behaviour in cognitive, affective and

Store Information

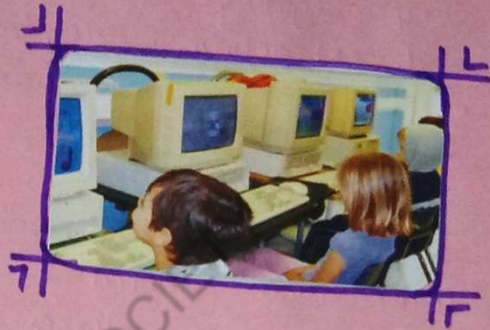


conative domain. The following guidelines are suggested in this direction :-

- 1.) Training from the beginnings :- Adequate training should be given to the students from the very beginning for using their senses in exploring and extracting adequate information from their environment, formal as well as informal learning situations.
- 2.) Storage, Retrieval and use of Information :- Information should be given to the students about various sources of stored information.
- 3.) Opportunities for acquaintance :- opportunities should be given to the students to acquaint themselves with the sources and place of information like information centre, school library, audio-visual education centre, Computer Centre, public information centre etc.
- 4.) Computer Education :- There is a need of proper computer education for the students from the beginning.
- 5.) Developing decision making and problem solving ability :- Adequate opportunities and training should be provided to the students for developing the ability of decision making and problem solving. It will help them in facing and solving life problems.



A computer stores a large amount of information and never forgets it.

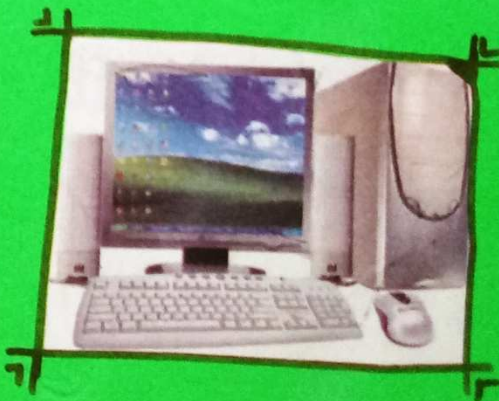
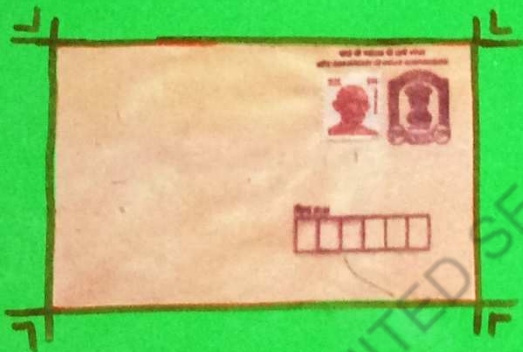
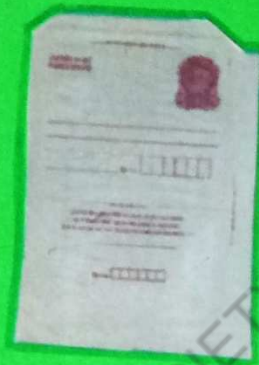


General Applications of Information & Communication Technology in Education and Training

Information and Communication technology has brought a revolution in the field of Education and training. In recent years, the use of computer as educational tools has become more and more popular. The following are the general applications of information and communication technology in education and training :-

- i) computer-based training (CBT)
- ii) web-based training (WBT)
- iii) Virtual classrooms
- iv) Video - Conferencing
- v) Examination
- vi) knowledge based etc.

using information and Communication technology, we can impart training to the students miles apart. we can provide huge knowledge based libraries which students can access and use in the process of education.



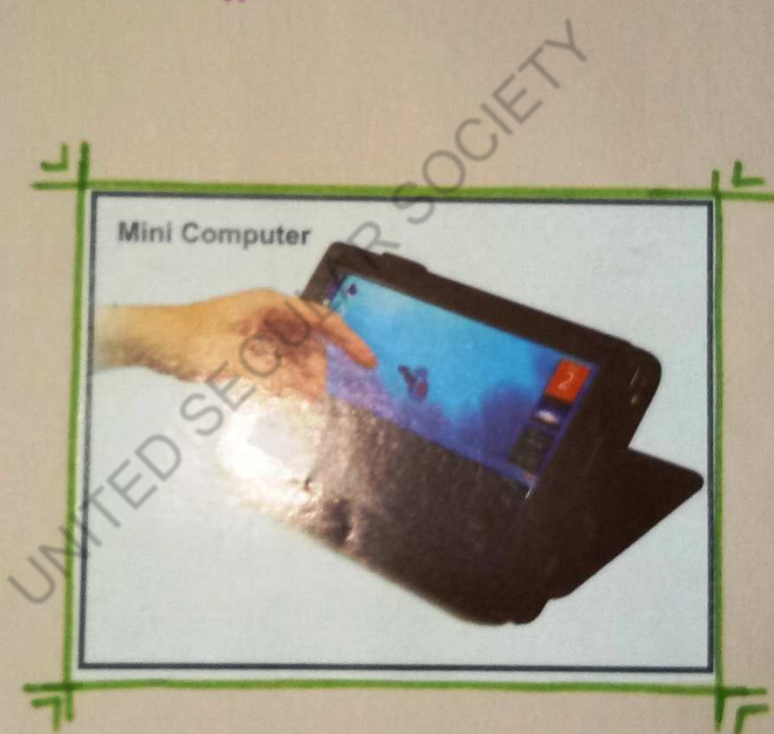
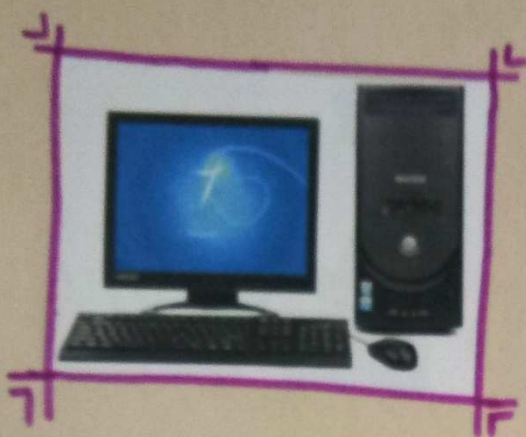
Information & Communication Technology in Science and technology

Information and Communication technology plays a key role in science and technology sector. It has changed such each and every field of science right from research and development, physics, chemistry, mathematics, medicines, astronomy, genetics etc. we can take examples of space technology, nuclear research, engineering, aircraft designing etc.

Information & Communication Technology & Computers

Information and Communication technology is not only used in commerce and industry. It has crept into almost all the activities of human life, right from his personal life to medicine to entertainment etc where it has created a new world in itself.

Information and Communication technology is that type of technology which helps us to have



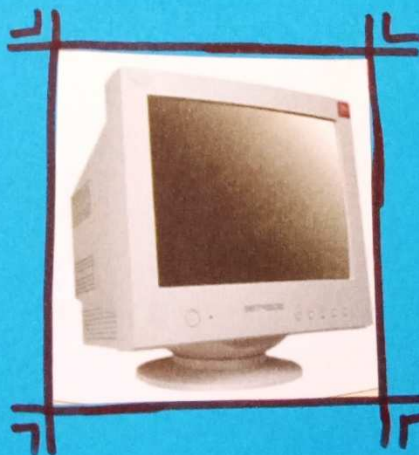
any type of desired information at our command. In this area of information and Communication technology, the concept of education also has revolutionised. Computers have done under in the field of information and Communication technology which can be summarised as under :-

- 1) Data bases and Information Centre :- Computers have helped in establishing big data and information Centre for centres gathering, processing, storing, retrieving, presenting and disseminating information to infinite number of users worldwide.
- 2) Decision - making and problem Solving :- Computers have helped in utilising stored information for the required decision-making and problem solving.

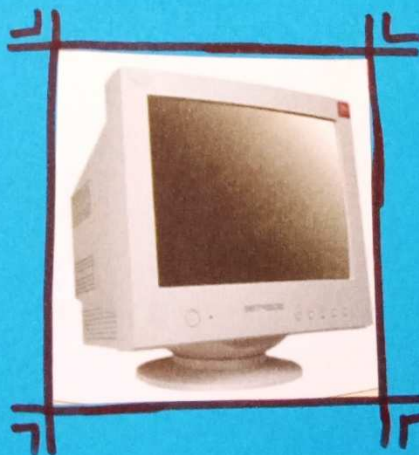
Meaning of Computer

Computer is derived from the word "Compute" which means to calculate. Hence, a computer is normally considered to be calculating device which can perform arithmetical, logical as well as relational operations at a very high speed and accuracy. The acronym for computer is commonly operating machine particularly used for Teaching, Education and Research. A computer may be defined as an electronic device that takes input from its users stores.

Electronic parts of a Computer



Electronic parts of a Computer



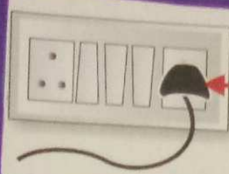
Full Form of Computer :-

C :-	Calculate	Commonly
O :-	Operate	operating
M :-	Memorising	machine
P :-	Print	particularly
U :-	Update	used for
T :-	Tabulate	Teaching
E :-	Edit	Education
R :-	Research	Research

The following points highlight the meaning of Computer :-

- 1) Electronic device :- A Computer is an electronic device which converts raw data into meaningful information.
- 2) General purpose machine :- A Computer is a general purpose machine that processes data according to a set of instruction that are stored in it.
- 3) Programmable Computing machine :- A Computer is a programmable Computing machine that accept processes, displays and stored data.
- 4) Computer as a system :- Computer is a system. A system is a group of integrated parts which have the common purpose of achieving some objectives. The following characteristics are key to a system.
* A system has more than one element.

How to start a Computer?



Main Power Supply Button



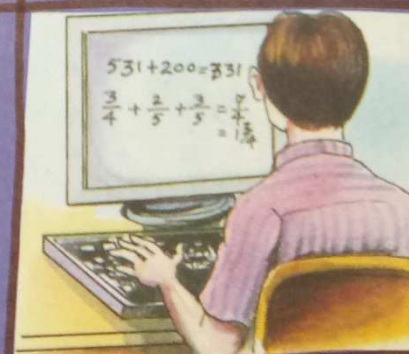
UPS Button



CPU Power Button



Monitor Button

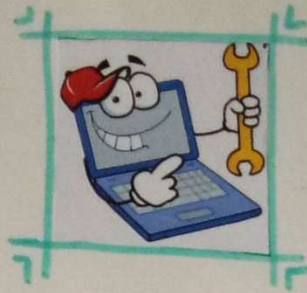


- 1.) Inputting :- The process of entering data and instructions into the Computer System.
- 2.) Storing :- Saving data and information or instructions to make them readily available for initial or additional processing as and when required.
- 3.) Processing :- Processing refers to perform arithmetic operations (add, subtract, multiply, divide etc) or logical operations (comparisons like equal to, less than, greater than etc) on data to convert them into useful information.

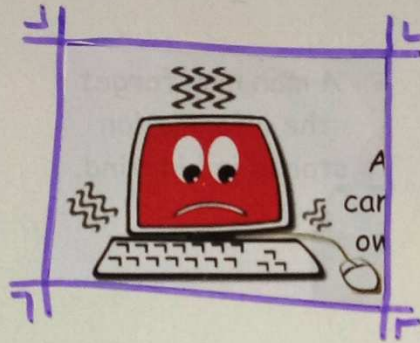
Characteristics of Computer

A computer is equip with number of characteristics that helps to handle the different problems more efficiently and economically.

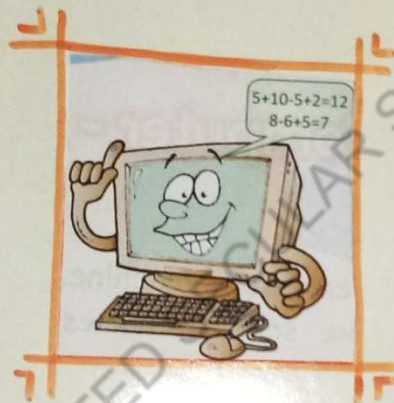
- 1.) Electronic Device :- A computer is an electronic device. It works on electrical signals or electrical pulses.
- 2.) Speed :- Computer are faster as compared to human beings. A computer works at a marvelous speed. Computers can process millions of instructions per second thus carrying out even the complex



Versality



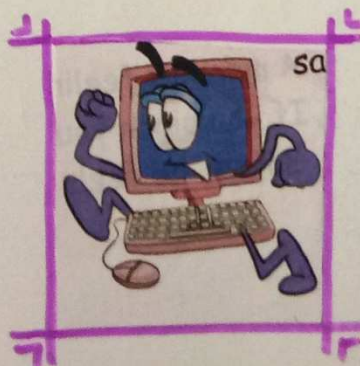
Automation



Accuracy



Diligent



Speed

task in fraction of seconds.

3.) Accuracy:- The accuracy of Computers is always 100%. Computer system always produces accurate request with valid data and instruction.

4.) Versality:- The accuracy of versality means that computers can perform various types of jobs depending upon the instructions feed to them and their hardware characteristics.

5.) Storage Capacity:- A Computer is called a "store house". A computer can store and recall large amount of information in very small space for a long time and in a perfect manner.

6.) Diligent:- computer is highly diligent or hard working. It can operate for long hours without taking rest and provides high accuracy in the results.

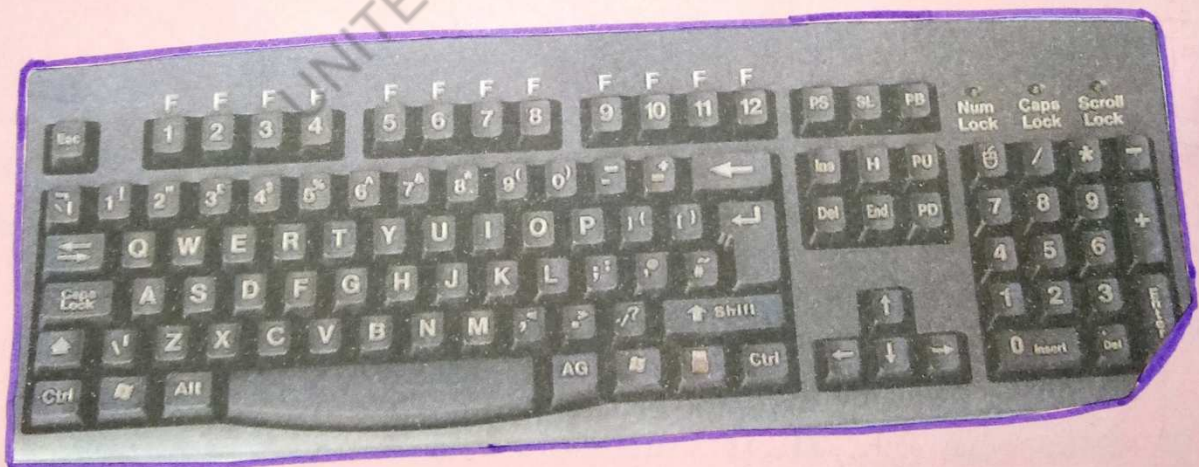
7.) No intellectual power:- In spite of various works performed by a computer in a marvelous manner and speed.

8.) Flexible:- A computer is quite flexible in its operation.

9.) Automation:- It is automatic in its operation and functioning. The word "automation" of computer implies that once the data and instructions are feed into a Computer, it process the data in its own.

Reliability:- Computer are more reliable than human beings

Input devices of Computer



Input Devices of Computer

Everything we tell the computer is input. Important types of input are :-

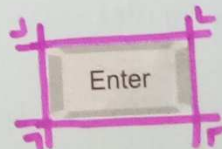
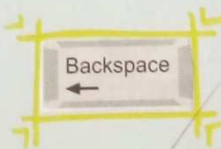
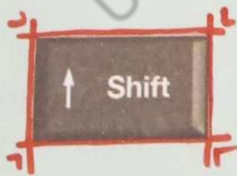
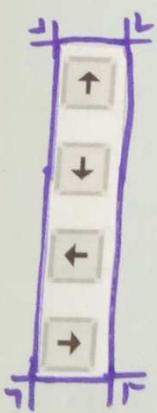
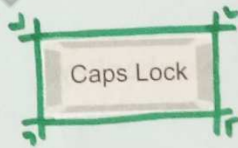
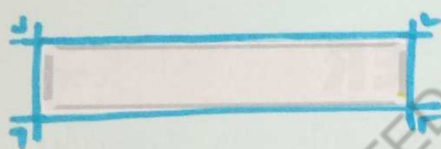
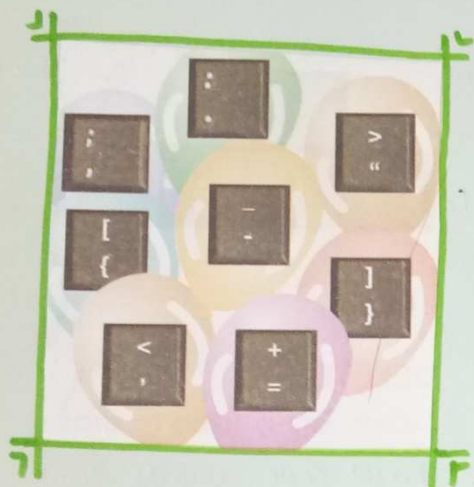
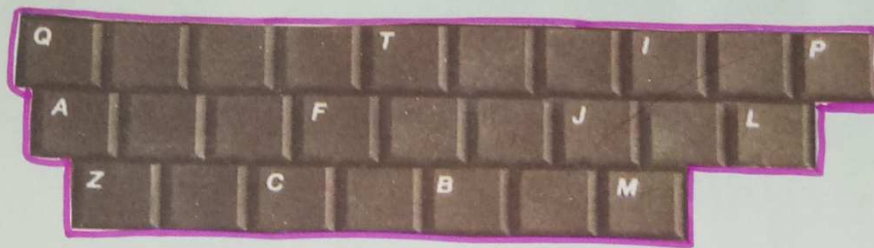
- 1.) Data :- Data is the raw facts given to the computer.
- 2.) Programme :- Programs are the sets of instructions that direct the computer.
- 3.) Commands :- Commands are special code words that the user input to perform a task.

Input Devices :- The devices that are meant for feeding data, programs, commands, instructions and user responds into the computer.

Types of Input Devices :-

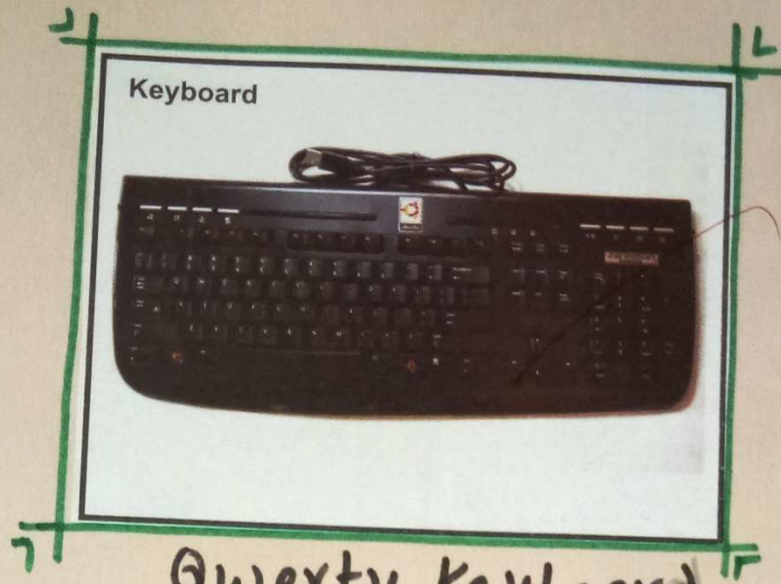
- 1.) Keyboard :- It is the most common device for the computer. It consists of a set of typewriter like keys that enables you to enter data into a computer.

- Alphanumeric Keys :- Letter (A to Z) and numbers or

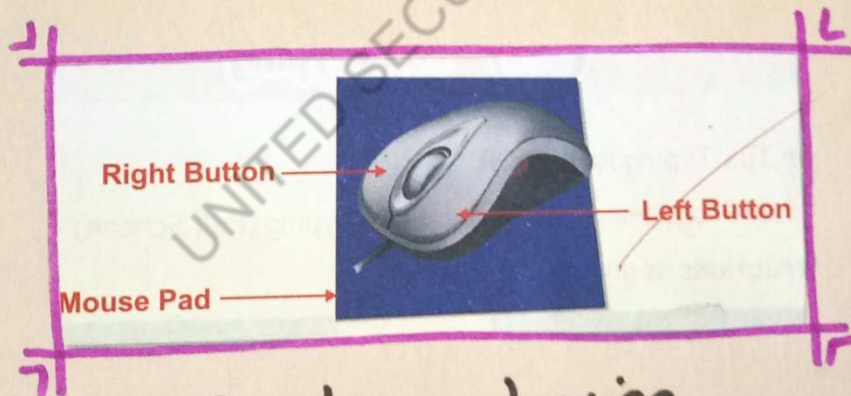


digits (0 to 9).

- Punctuation keys :- Comma, Period, Semicolon and so on.
- Special keys :- Functional keys, Control keys, Caps, Lock key and so on.
- * Functional key :- These are 12 in number and are situated in the upper left side of the keyboard and are used for some special purpose or combination of commands. These are printed with symbols as $F_1, F_2, \dots, F_{12}$.
- * Cursor key :- These are special keys on the keyboard. To control this cursor there are special keys which are given below:-
 - Arrow keys :- These keys are used to move the cursor up, down, left, right.
 - Some other keys :-
 - i) WS-key :- This key insert a letter at the cursor.
 - ii) Esc-key :- This is used to cancel the command given earlier.
 - iii) Back space key :- This is used to delete the left letter to the cursor.
 - iv) Caps Lock key :- This is used to write in capital letters.



Qwerty Keyboard



Pointing device

Types of Keyboard is

QWERTY keyboard is the standard layout of letters, numbers and punctuation is known as QWERTY keyboard because the first five keys on the top row of letters spell QWERTY. The QWERTY keyboard was designed in 1870 for mechanical type setting.

PC keyboard: There are three different PC keyboards. Original PC keyboard with 84 keys. PC keyboard with 84 keys.

Pointing Devices

A variety of pointing devices can used to move the cursor on the screen. The mouse is a pointing point on the computer screen.

Mouse: Mouse is a device that lets you select and move the on your screen. It consists the cords end of the mouse or pointer on a display screen. The mouse is designed from the shape. It looks a lot like a mouse. It also allows you to draw pictures by using the mouse. It is just a point or point device.

Types of Mouse

Wired Mouse: It has a cord or cable that connects it to the computer.

Types of Mouse

Optical Mouse



Ball Mouse



Scroll mouse



good



Track
Ball

Joystick



underside that can roll in all directions.

ii) Optomechanical Mouse :- It is similar to a mechanical mouse except that it uses optical sensors to detect the movement of the ball on the mouse pad.

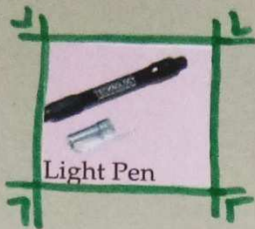
iii) Optical Mouse :- Optical Mouse uses a laser beam to detect the movement of mouse on specially designed mouse-pad.

Mouse-pad :- It is a pad over which mouse can move smoothly. It provides friction than smooth surfaces such as glass and wood.

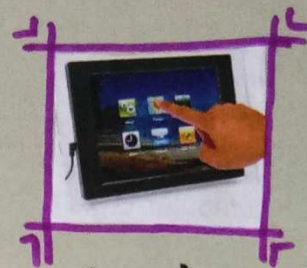
2) Track ball :- A trackball is a mouse lying on its back. You rotate the ball with your finger or palm to move the pointer on the screen. There are one to three buttons next to the balls which you use just like mouse buttons.

3) Glide Pad :- It is a touch sensitive pad for controlling cursor. The user slides finger across the pad and the cursor follows the finger movement.

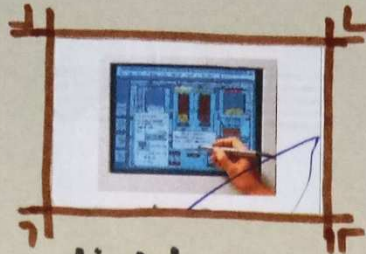
4) Joystick :- Joystick (vertical stick) or arrow buttons (game pad) control cursor motion. It is a level that moves in all directions and controls the movement of a pointer or some other



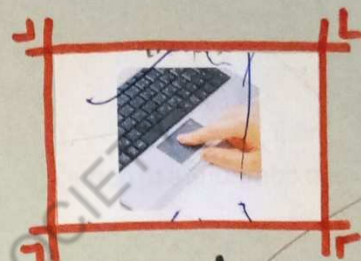
Light Pen



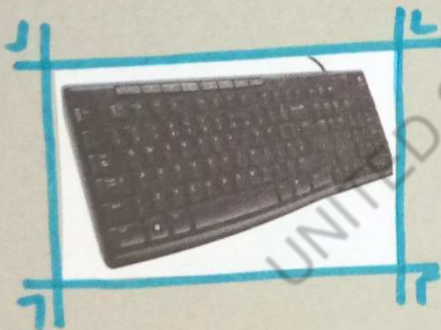
Touch screen



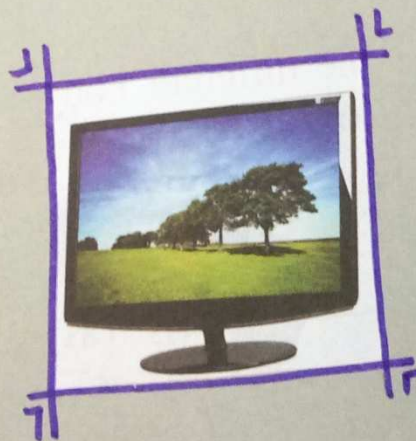
light pen



Touch pad



computer
terminal



display symbols.

- 5) Light Pen :- It is an input device that utilizes a light sensitive detector to select objects on a display screen.
- 6) Touch Screen :- we can make selection by just touching the screen. It is a type of display on which you can use your fingers to point directly objects on the screen.
- 7) Touch Pad :- A small, touch sensitive pad is used as a pointing device on some portable computers. By moving a finger or other object along the pad you can move the pointer on the screen.

Computer Terminal

A computer terminal generally combines input and output functions. It consists of

- i) Keyboard for inputting information directly to the computer.
- ii) Screen for displaying information from the computer. It is generally considered as an input device especially some of the specialized types.
 - Dumb terminal
 - Smart or Intelligent terminal
 - Point of Sale terminal (POS)



Multimedia Devices



Tape Recorder

Multimedia Input Devices

It is a combination of sounds and images with text and graphics. It includes music, movies, animations, people talkings, sound effects like the smashing of a glass and the roar of crowd.

- 1) Sound Input Devices:- Microphones can capture sound from the air which is good for sound effects or voices.
- 2) Voice/Speech Input Devices:- Voice recognition devices are used to convert the voice signals to appropriate words and device the correct meaning of words. These input devices convert or person's voice or speech into digital form. There are even systems that will translate from one language to another such as from English to Japanese. It is of two types :-
 - i) Continuous Speech:- Continuous speech recognition system are used to control a micro computers operations and to issue commands to special application programmers.
 - ii) Discrete words:- Preparing memos and other written documents is a common activity in business. Discrete word recognition system allow users to dictate directly into a micro computer using a microphone.



Video
Input
Devices



Data Automation Device

Video Input Devices

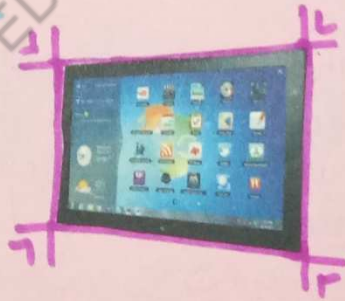
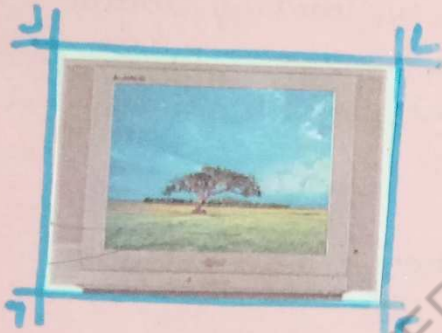
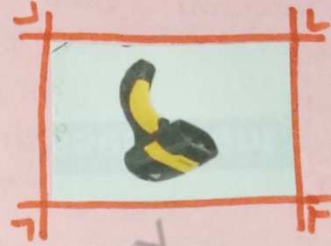
It includes digital camera, video camera and Quick camera. Digital camera takes a still photograph stores it and then sends it as digital files. Video camera records data and then can upload it to the computer with the right hardware. Quick camera is a tiny video camera designed especially to sit on your computer. It feeds pictures directly to the computer. No tape or film to develop.

Data Automation Devices

- i) To avoid mistakes in data entry by making initial entering of the data as automatic as possible.
- ii) To avoid having to re-enter data to perform a different task with it.

There are two types of Automation devices :-

- 1.) General devices :- There are general devices of automation. Scanner is a general device for inputting data. It can read text or illustrations printed on paper and translate the informations into a form that the computer can use.
- 2.) Special devices :- Some special devices types of characters read with special devices are given below.
 - i) Bar - Code Reader :- These are photoelectric scanners that read the bar codes or vertical zebra striped



Output
Devices



marks printed on product containers. These are used in super market, book shops etc.

ii) Optical Mark Reader / Recognition :- OMR also called mark sensing is a technology where an OMR device senses the presence or absence of a mark such as pencil mark. OMR is used in tests such as aptitude tests.

iii) Optical Character Recognition :- Optical character or recognition (OCR) involves reading text from paper and translating the images into a form that the computer can manipulate.

Output Devices

Output is an information that is a result of processing. It is of two types.

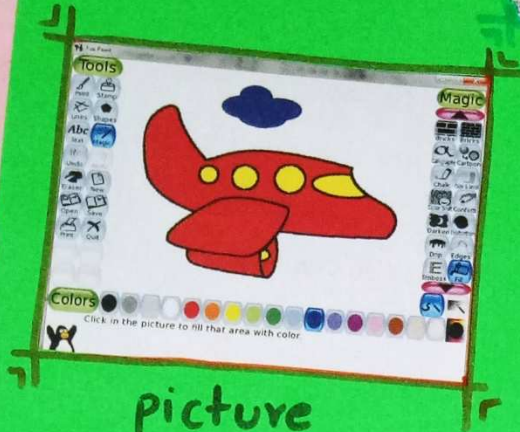
i) Soft Copy :- It is usually a screen or displayed output or by other non-permanent means. e.g. Monitor, TV screen etc.

ii) Hard Copy :- It is the output that can be printed on paper or other permanent media. e.g. Printer

Three categories of Output are :-

a) Text documents :- It includes reports, letters etc.

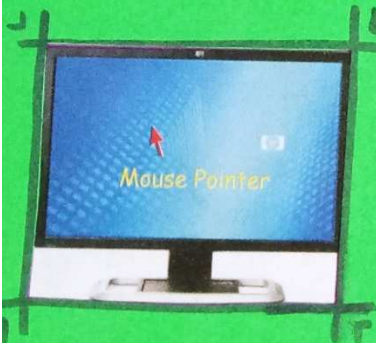
chart



picture



Text



Types of Monitors

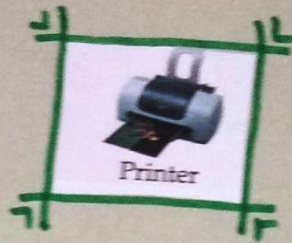
- b) Graphics :- Charts, Graphs and pictures.
- c) Multimedia :- Combination of text, graphics, Audio, Video

Types of Monitors

- i) Monochrome :- Monochrome monitors actually display two colours, one for the background and one for the ground.
- ii) Grey scale :- A grey scale monitor is a special type of monitor that can display shades of grey.
- iii) Colour :- Colour monitor can display from sixteen to over one million different colours. Colour monitors are sometimes called RGB monitors because they accept three separate signals - red, green and blue.

Classification on the basis of signal :-

- i) Digital monitor :- A digital monitor accepts digital signals.
- ii) Analog Monitor :- Analog monitor is a colour screen that has been used for years in television. Analog monitor accepts both digital and analog signals.



Hard Copy Output
Devices

Hard Copy Output devices

1) Printer:- Printers are more commonly used output devices that provides the user with a permanent visual record of the output data in human readable form known as Hard Copy. Following points should be kept in mind while selecting a printer.

- i) Speed of the printer
- ii) Quality of printing
- iii) Cost of the printer
- iv) Economy in use.

Printer can be divided into two main category.

Impact Printer:- The general features of Impact printer.

- i) use force by applying hammer pin to strike the paper.
- ii) less expensive.
- iii) Prints on most paper types
- iv) Fast multiple copies may be produced at once.
- v) Slow speed in characters per second.

Types of Impact Printer:-

- i) Character Printer:- It print only one character at a time at a speed of 30 to 500 characters per second. It includes
 - Dot matrix Printer
 - Daisy wheel Printer

- ii) Line Printer:- Line printers are high speed printers capable of printing an entire line at one time. A fast line printer can print as many as 3000 lines per minute. It includes drum and chain printers.

Inkjet Printer



Laser Printer



Non-Impact Printer

Non-Impact Printer :- A non-impact printer does not strike the paper when it is printing instead it uses ink-spray or toner powder. Non-impact printers can handle graphics and often a wider variety of fonts than impact printers. But they are slower and more expensive than that of impact printer.

Features :-

- i) No contact with paper
- ii) Fast speed
- iii) Graphics and font can be handle by non-impact printers.

Ink-Jet Printers :- It print characters by spraying small drops of ink through tiny nozels onto paper in the form of matrix. Vibrating Crystals force ink droplets from selected nozels. Different colour inks may be used and combined to form additional colours. Droplets of ink are electrically charged deflection plates.

Laser Printers :- It uses a combination of micro-electronics, laser beam technology and photocopying technology. It utilizes a light beam to form images on the paper using toner ink as medium. It can also prints by dots but these dots are very small and much near so printed character and graphics are much clear.



Sound card



Speakers

Sound Cards
and
Speakers



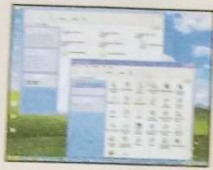
Pictures:- pictures are used to produce large photos or images such as drawing graphs, making maps, construction plans for building, plotting contour lines and detailing of civil engineering structures or the plans for various components.

Sound Cards and Speakers

As the sound capabilities have become an essential part of the computer system, laptops have become key multimedia systems. In computers having sound capabilities are not just without a sound card. Sound cards and speakers are used to convert data of the computer in the shape of sounds. An external sound system is used to maximize and output sounds. Sound cards are necessary for playing all CD-ROMs. They have become common to enhance personal computers. Sound cards enable the computer to output sound through speakers connected to the board. In recent times, sound from a microphone connected to the computer.



Windows Vista Desktop



Windows XP Desktop



Windows 7 Desktop



MS- Windows



To begin, click your user name



Administrator

Type your password

EN

Turn off computer

After you log on, you can add or change accounts.
Just go to Control Panel and click User Accounts.

MS - Windows

Basic Concept of an Operating System and its Functions:-

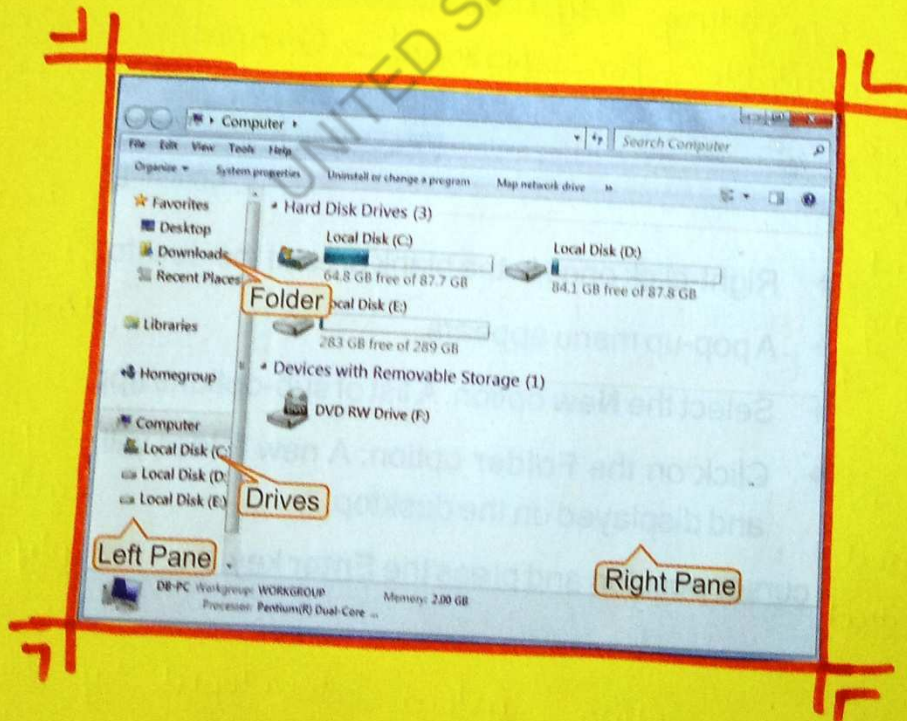
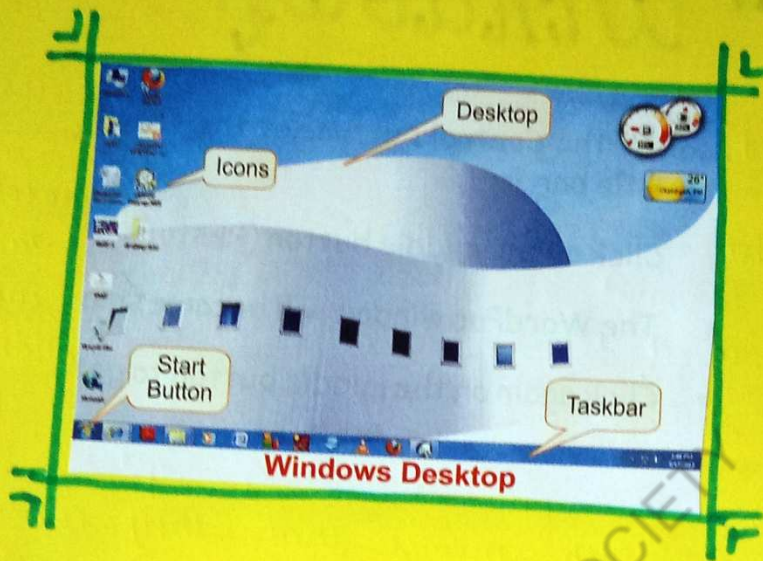
Operating system designed and produced by Microsoft Corporation. Personal Computer consist of a variety of components called Hardware that can only work together to process data. When the functions of the individual components are unified by an operating system (OS). Computer Operating Systems are a form of software which means that they consist of specific programmed information and instructions that allow many types of information to be processed and displayed in certain ways.

New Computer users may think that the Microsoft Windows Operating System is the only operating system available for personal Computers. In fact, there are many types of operating systems available for Computers.

The recent years, Microsoft Corporation has faced increasing competition in the personal Computer market from two other leading operating systems.

Mac OS is the operating system developed by Apple Inc. and used on its personal Computer system which are called Macintosh Computers or simply Macs.

Linux is an operating system developed by Linux Torvalds and used on a variety of personal and business computer system. The linux operating system is rising in popularity among certain computer users and



business because it is made available free of charge as open source software.

Navigating the Window Desktop :-

The concept of the operating system desktop is an analogy to the idea of a physical desktop containing the basic items you need to run an office : paper, pens, paper clips, stapler, file folder, telephone. The operating system desktop is intended to be a graphical users interface (GUI) which serves as a virtual representation of the Computer that contains the items you need.

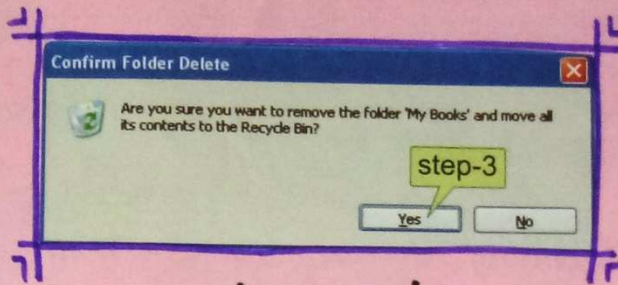
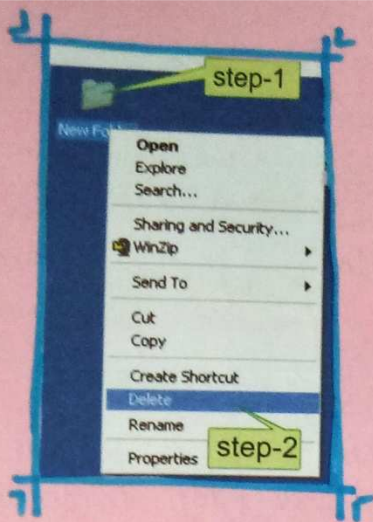
Working with Windows :-

A window is large rectangular area that will be opened when you click a folder on the desktop, run a program, open a document, fill or you click a dialog box in the program. Complete detail and about windows and their various working environments are as follows:-

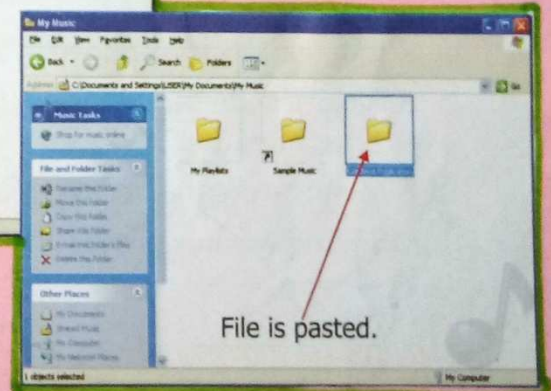
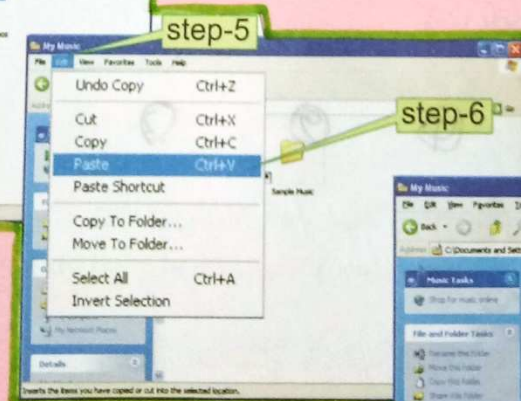
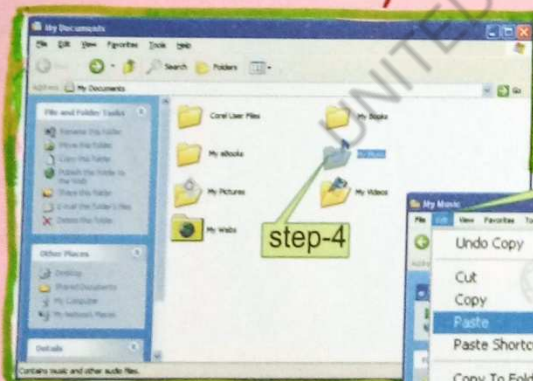
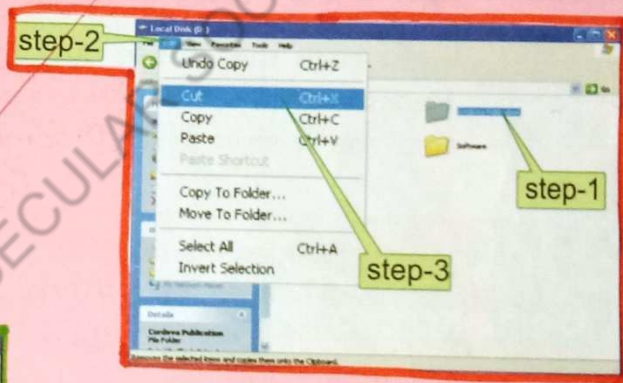
- Format windows
- Moving windows
- Resizing windows
- Minimizing and Maximizing windows

Format Windows:- The various components of a window when it is displayed on the desktop are :-

- i) Title Bar :- In the title Bar, the title name of window will be displayed with a Colour pattern.
- ii) Frame :- Everything is inside the frame. The frame



Format Window



Moving Window

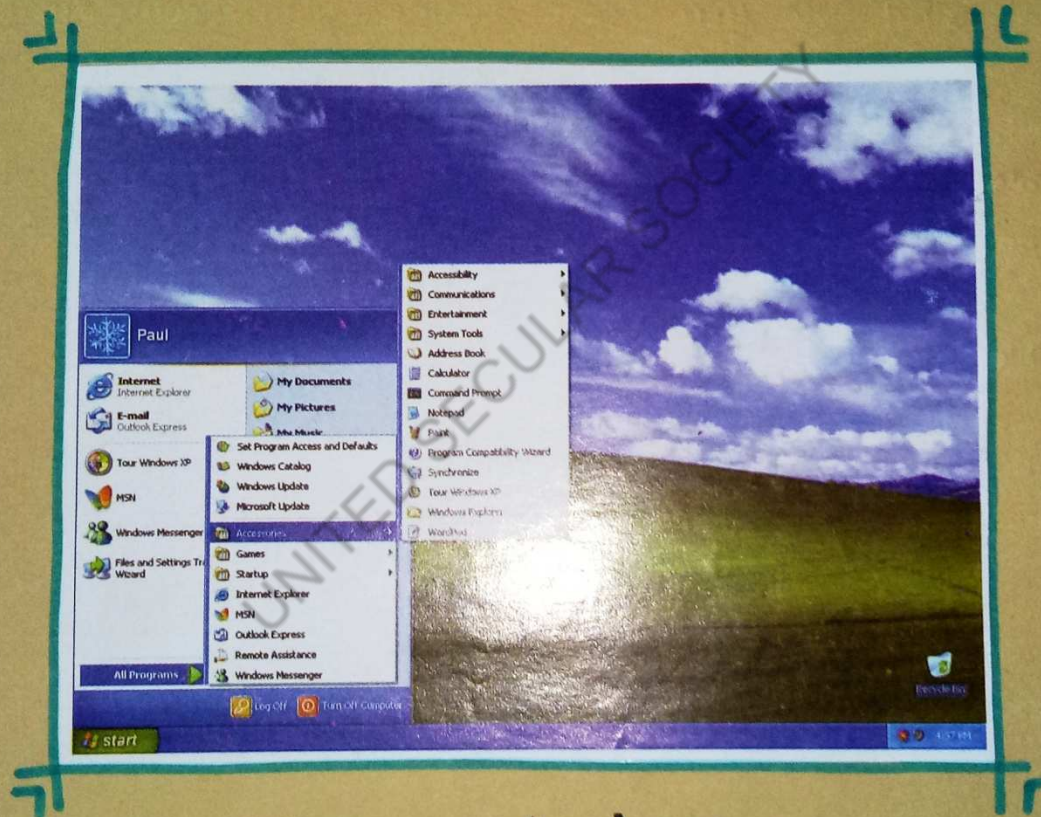
surrounds the windows. If you move the mouse pointer to any edge or corner of your window at the frame, you will see that your mouse pointer will change its shape like double head arrow ($\leftrightarrow$) by holding and moving away the mouse you will see that the pointer will move like a ghost and so you can resize your window.

iii) Scroll Bar:- By using scroll Bar, you can make it visible by using the scroll left or right. For this purpose, there are horizontal and vertical scroll bar on opened window by scrolling you can make visible only hidden data or picture.

iv) Work Space:- Work Space is an area where you can read and write. All the file folder and contents are displayed in the work space. This space is also known as client area because all the users are linked with this.

v) Restore Button:- When a window is maximised and you want the normal shape or original shape of window then you can click the maximize button again. Your window will take place its original or normal shape.

Moving Windows:- You can move the window by the keyboard. For this set focus to a window by clicking somewhere in the window. Now press Alt + space bar key to open the windows control menu then press M key from

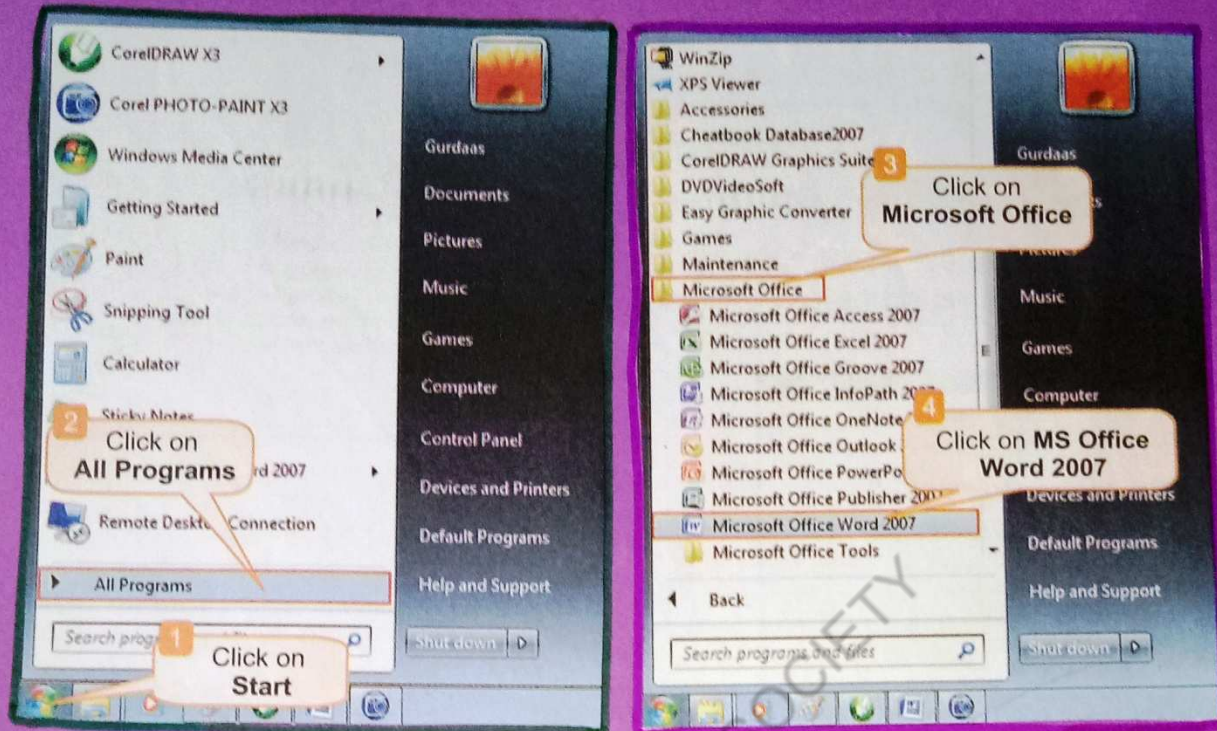


Resizing Window

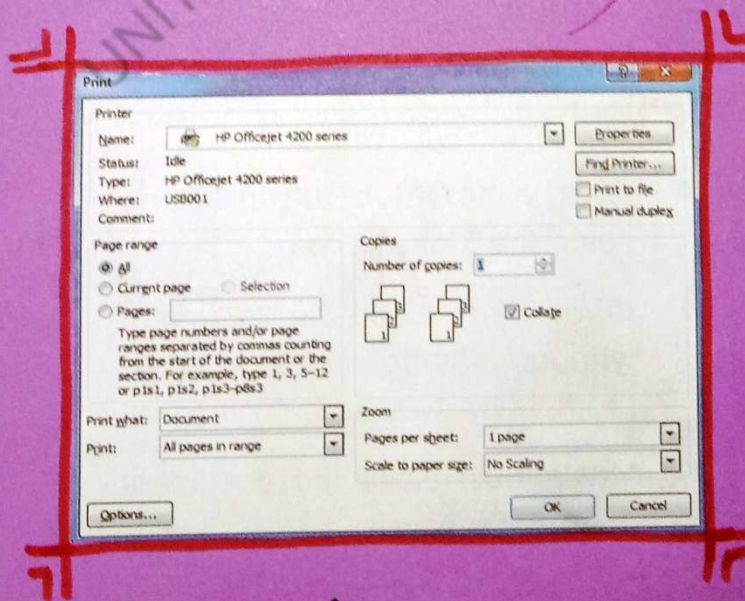
the keyboard. A four prearged arrow cursor appears.

Resizing Windows :- You can resize a window from any side of the windows boundary for this by using the mouse, move the mouse and pointer will change. It will become double arrow ($\longleftrightarrow$) i.e. the left-right pointing arrows. Hold the mouse button down and drag the pointer to the right and left. A rectangular image describes the new window with dimension. When the width of the rectangular image is according to you, release the mouse button you will see the window with its new size.

Minimise and Maximise Windows :- To minimize a window by using a mouse, move the mouse pointer to the maximize button in the upper right corner of the title bar. When you click the window will be maximized to a full screen. By clicking the restore button, the window will return to its normal size.



open MS-Word



Printing

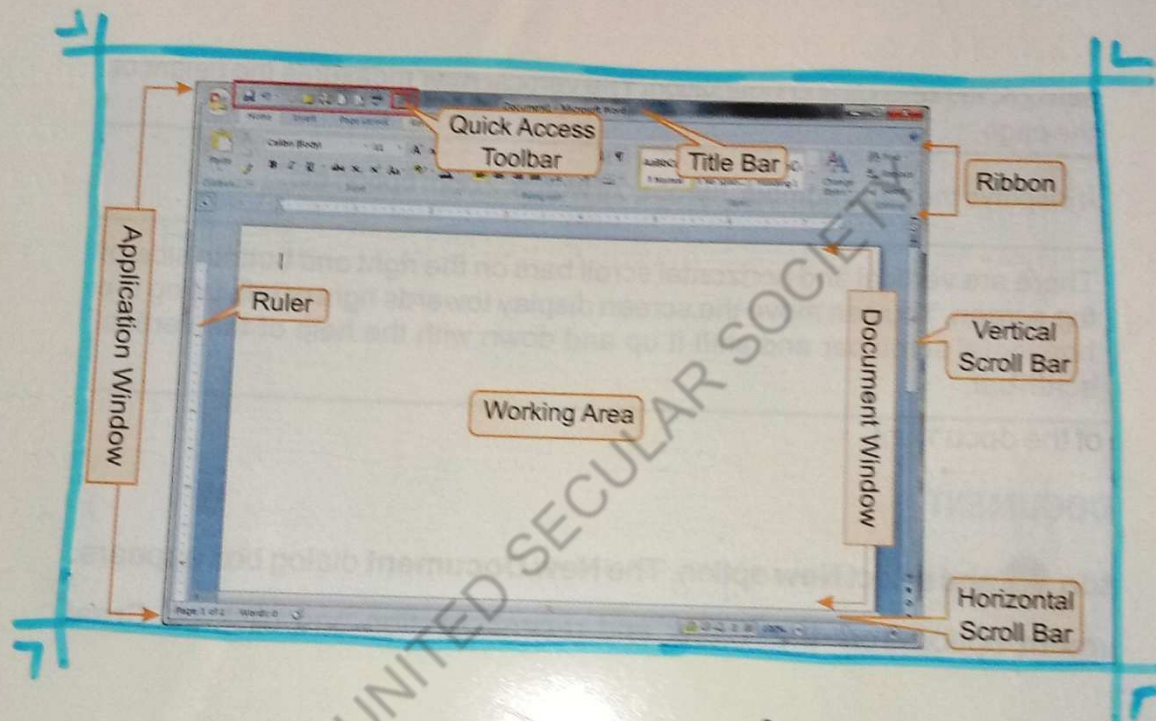
MS-WORD

MS-WINDOWS:- Microsoft Corporation is a world leading computer company having its head quarter California, USA. It is well operating system for personal computer known as Microsoft Window.

MS-Office is a PC was first introduced in its complete compatibility with windows X set in 1990. Office made its appearance in on macintosh with a version for window following in 1990.

MS-WORD:- MS word is a word processing program developed by Microsoft Corporation. It is a program which process textual matter and creates documents. It is widely used for

- Typing
- Editing
- Printing
- Storage
- Formatting
- Graphics
- Scrolling
- Spell - Check
- Mail merging
- Accomodating text



Components of
MS-Word

Use of MS-Word for Teaching and Learning :-

- i) Writing letter and sending message on thermal.
- ii) Preparation of projects and research reports.
- iii) Words and phrases can be high lighted.
- iv) Produces students ability to learn.

Components of MS-Word

- 1) Title bar:- It is located at the top of the screen. It displays the name of the application (MS-Word) and name active / current document.
- 2) Menu Bar:- It is located below the title Bar. It list the word menu options like File, Edit, View, Insert, Format, Tools, Tables, Window, Help.
- 3) Formatting tool Bar:- It is displayed at the top of the screen below the menu bar. It provide shortcuts to menu commands. It consist of tools frequently used for formatting document, changing word or paragraph by left, centre, Right or justify both the sides etc.
- 4) Ruler Bar:- It appears under the tool bar. It allows to format the vertical alignment of text in the document. It is used to set the tab steps, margins and indents of the document. Take the pointer of any position of the ruler. Click it to insert the tab stop position. A symbol inserts