



# VOL.-2

## ENGLISH MEDIUM

08. Computer Software
09. Data Communication
10. Internet
11. Microsoft Windows
12. Microsoft Office
13. Abbreviations



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**Viva  
Technologies**

# COMPUTER BOOK

## CPCT/COMPETITIVE EXAMS/DCA/PGDCA



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## Software



### Introduction

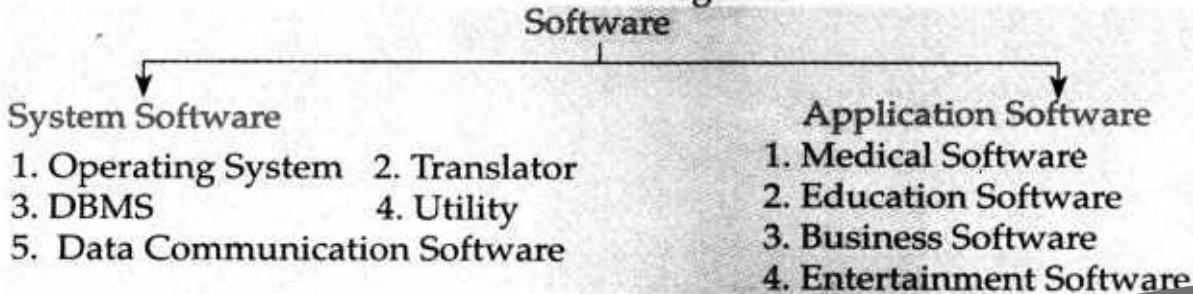
A computer is really a system of many parts working together. Each component of a computer is either called hardware or software. The physical parts, which we can see, touch and feel are collectively called hardware. The computer and all the peripheral devices such as printers, scanners, microphones, speakers, and webcams etc. connected to it that are used to input and output the data are hardware. Peripheral devices are hardware devices that are connected to the motherboard but not part of the main computer system and were added later to the system.

The program needs a kind of documentation that gives a comprehensive procedural description of a program. It shows as to how software is written. Program documentation even has the capability to sustain any later maintenance or development of the program. The program documentation describes what exactly a program does by mentioning about the requirements of the input data and the effect of performing a programming task.

Software, on the other hand, refers to the set or series, of instructions or programs, that tell the hardware what to do. It is the combination of Instructions and Data, that forms the building blocks of applications such as Word Processor, Computer Game or Spreadsheet. The main purpose of software is to process the data into information. The interface between a human and a computer is called a user interface. Interfaces between hardware components are physical. Operating system provides interface between hardware and software. Compatibility, in regard to computers, refers to the software being able to run on the computer. The person who writes and tests computer program is called a programmer and a person who determines a buyer's need and matches it to the correct hardware and software is called a computer sales representative. The process of writing out computer instruction is known as coding. Copying computer program or software without the permission of its author is called a software piracy.

Thus, if we want to know what a program is meant to do and how it has to be executed, we should refer to the program documentation. The most common examples would be the instruction manuals for a software product, which is given to the end-user. The description languages used are informal and are intended to make life easy for the end-user.

Software is often divided into two categories



**System software:** The user interacts primarily with application software. System software enables the application software to interact with the computer hardware. System software is "background" software that helps the computer to manage its own internal resources. It is not a single program. Rather it is a collection of programs, including the operating system, Utilities and Device drivers etc.

System software includes the operating system and all the utilities that enable the computer to function. It refers to the files and programs that make up our computer's operating system. System files include libraries of functions, system services, drivers for printers and other hardware, system preferences, and other configuration files. The programs that are part of the system software include assemblers, compilers, loaders, linkers, file management tools, system utilities and debuggers. The system software is installed in computer when we install operating system. Since system software runs at the most basic level of computer, it is called "low-level" software. It refers to the operating system and all utility programs that manage computer resources a low level. It generates the user interface and allows the operating system to interact with the hardware. Every computer that receives some sort of human input needs a user interface, which allows a person to interact with the computer. While devices like keyboards, mouse and touch-screens make up the hardware end of this task, the user interface makes up the software for it. The two most common forms of a user interface are the command -line interface, where computer commands are typed line-by-line, and the Graphical user interface, where a visual environment (such as windows, buttons, and icons) is present.

### **Operating system**

The operating system works as a mediator between hardware, application software and user. Operating systems are programs that coordinate computer resources, provide an interface between users and the computer, and run applications. They manage the computer's processes functioning as an interface, connecting users with the application software and hardware. Every general purpose computer must have an operating system to run other programs. It performs basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers. It controls different components of a computer and allows users to interact with computer. For large systems, the operating system has even greater responsibilities and powers. It makes sure that different programs running at the same time do not interfere with each other. Memory management is also a function of an operating system in which rearranging and allocating memory for multiple computing task. The operating system is also responsible for security, ensuring that unauthorized users do not access the system. It makes computer work properly. Some most popular operating systems are MS DOS, Windows 95, Windows 98, Windows XP, Windows 2000, Windows Vista and Mac OS X etc.

As a user, we interact with the operating system through a set of commands. For example, the DOS operating system contains commands such as COPY and RENAME for copying files and changing the names of files.

The commands are accepted and executed by a part of the operating system called the command processor or command line interpreter. Graphical user interfaces allow us to enter commands by pointing and clicking at objects that appear on the screen.

When we first turn on computer, the only thing it is capable of doing is finding the BIOS (Basic Input Output System), ROM (Read Only Memory), chip on computer's system main board. This BIOS chip has a program burned onto it that knows where to look for, and how to access the different expansion slots, ports, drives, and the Operating System.

The computer begins the start up process or boot sequence, it loads the programming code and instructions on the BIOS chip into memory and then carries out the instructions in order. It takes an internal and external inventory of equipment and performs several self-tests which are called Power on Self Tests (POST). The POST is a built-in diagnostic program that checks hardware to ensure that everything is present and functioning properly. The POST checks things like the bus, ports, system clock, display adapter memory, RAM, DMA, keyboard, floppy drives, hard drives, and so forth. The CPU sends signals over the system bus to make sure that these devices are functioning. If the POST is successfully completed, the computer has to locate the Operating System.

Booting also known as "booting up", is a bootstrapping process that starts the operating system when the user turns on a computer system. A boot sequence is the initial set of operations that the computer performs when power is switched on. The boot-loader loads the main operating system for the computer. 'Warm boot' is pressing the restart button while the computer is on and a cold boot is pressing the power switch when it is turned off.

### **Types of operating system**

Operating systems can be classified as a method of operating the system and a mode of system access. As computers have progressed and developed so have the types of operating systems. Many computer operating systems will fall into more than one category.

1. **Real time operating system** : A real time system is a computer system capable of processing data so quickly that the results are instantly available. There is often a need for front end processor in the system. A real-time operating system is an operating system that guarantees a certain capability within a specified time constraint. If the calculation could not be performed for making the object available at the designated time, the operating system would terminate with a failure. A Real time operating system typically has very little user-interface capability, and no end-user utilities, since the system will be a "sealed box" when delivered for use. A very important part of an RTOS is managing the resources of the computer so that a particular operation executes in precisely the same amount of time, every time it occurs. Some real-time operating systems are created for a special application and others are more general purpose. General-purpose operating systems, such as DOS and UNIX are not real-time.

**2. Multi-access operating system :** It allows two or more users to run programs at the computer's resources simultaneously. Some operating systems permit hundreds or even thousands of concurrent users. The operating system must make sure that the requirements of the various users are balanced, and that each program they are using has sufficient and separate resources so that a problem with one user doesn't affect the entire community of users. Unix, Linux and Windows 2000 are examples of multi-user operating systems.

**3. Multiprocessing operating system :** It is an operating system when two or more processors are present in a computer system sharing some or all of the memory. It supports running a program on more than one CPU. Unix, Linux and Windows 2000 are examples of multi-processing operating systems.

**4. Multitasking operating system :** It allows more than one program to run concurrently. An operating system that is capable of allowing multiple software processes to run at the same time. Unix and Windows 2000 is an example of multi-tasking operating systems.

**5. Timesharing operating system :** Processor time is divided into small units called time-slices and is shared in turn between users to provide multi access.

**6. Multi-programming operating system :** More than one program resides in main storage and is being processed apparently at the same time. This is accomplished by taking turns at short bursts of processing time.

**7. Batch processing operating system :** The job is not processed till there is full input. The jobs are entered and stored on a disk in a batch queue and then run together under the control of the operating system. A job may wait in a batch queue for minutes or hours depending on the work load..

**8. Single tasking operating system:** Single-user, single task : As the name implies, this operating system is designed to manage the computer so that one user can effectively do one thing at a time. The Palm operating system for Palmtop computers is a good example of a modern single-user, single-task operating system.

**9. Single-user, multi-tasking :** This is the type of operating system most people use on their desktop and laptop computers today. Microsoft's Windows and Apple's Mac operating system are both examples of operating systems that will let a single user have several programs in operation at the same time. For example, it's entirely possible for a Windows user to be writing a note in a word processor while downloading a file from the Internet while printing the text of an e-mail message.

There are some important operating systems

**1. MS-DOS :** It was the main operating system of Microsoft installed in personal computers. It's most popular version is 7.0. It is simple, non-graphical and command line operating system but remembering all commands are very difficult task. So it was gradually replaced on desktop computers by operating systems offering a graphical user interface (GUI).

2. **MS Windows** : Microsoft Windows is a series of operating systems and graphical user interface produced by Microsoft. It has other versions like Windows 95, Windows 98, Windows XP and Windows vista. The most recent client version of Windows is Windows 7; the most recent server version is Windows Server 2008 R2.

3. **UNIX** : Unix is a computer operating system originally developed in 1969 by a group of AT&T employees at Bell Labs including Ken Thompson, Dennis Ritchie, Brian Kernighan, Douglas McIlroy and Joe Ossanna. Today the term Unix is used to describe any operating system that conforms to Unix standards, meaning the core operating system operates the same as the original Unix operating system. Unix operating systems are widely used in both servers and workstations. First time it was written in assembly language but in 1973 it was rewritten in C programming language. Unix was designed to be portable, multi-tasking and multi-user in a time-sharing configuration.

4. **Linux** : It is a Unix-like operating system based on the Linux kernel. The name "Linux" comes from the Linux kernel, originally written in 1991 by Linus Thorvald. Linux is predominantly known for its use in servers and it is also a example of open source software.

**Virtual memory** : It is a space on hard disk which is used by CPU as extended RAM. It can be called logical memory which is controlled by operating system. It is an imaginary memory area which is supported by operating system. It is an alternate set of memory address. Virtual memory permits the central processor to temporarily store instructions that are currently used on a direct-access storage device on-line with the computer. Programs use these virtual addresses rather than real addresses to store instruction and data. When the program is actually executed, the virtual addresses are converted into real memory addresses. Its main purpose is to increase address space.

### Translator

Translator is a computer program or set of instruction that converts instructions written in programming languages or source code to machine language or object code.

1. **Assembler** : The assembler translates the source program in assembly language into machine code.

2. **Compiler** : The compiler is a program that translates the user source program written in high level language to an object code ready for execution. It reads the entire source code, collecting and reorganizing the errors. We have to correct the syntax or it won't compile. After correcting all the mistakes it translates the entire source code into object code.

3. **Interpreter** : The interpreter is also a program that translates the user source program written in high level language to an object code. A compiler translates an entire program but, an interpreter translates individual lines and instructions and execute the translated object code without saving it. So, when all programs are executed, at the end it gives result.

1. **Database management system** : DBMS is a computer software system which constructs, expands, sorts and maintains the database. It also provides the interface between the user and the data in the database.

## Utilities

It is also called service program . It is a small system program which provides a useful service to the user and enhances the capabilities of operating system. It makes it easier to use computer. It performs a very specific task, usually related to managing system resources and tells the computer how to use its components. The operating system contains a number of utilities for managing disk drives, printers and other devices. Some utilities are :

1. **Disk formatting** : Disk formatting is the process of preparing a hard disk or other storage medium for use according to operating system, including setting up an empty file system.

2. **Disk cleaner** : Disk cleaner is a computer maintenance utility designed to free up disk space on a computer's hard drive. The utility first searches and analyzes the hard drive for files that are no longer of any use, and then it removes the unnecessary files.

3. **Disk Compression** : Disk compression increases the amount of information that can be stored on a hard disk by compressing all information stored on a hard disk. A disk compression utility works automatically and the user doesn't need to be aware of its existence.

4. **Backup program** : Backup program is a computer program used to perform a complete copy or backup of a file, data, database system. The full backup program enables a user to make an exact duplicate of everything contained on the original source or computer system. This software must also be used to perform a recovery of the data or system in the event of a disaster.

5. **Virus Scanner** : It is also called anti-virus. It is used to prevent, detect, and remove computer viruses, worms, adware, spyware and other types of malware.

6. **Debugger** : In a computer a bug is a coding error which causes wrong result. The process of searching and correcting bugs in a program is called debugging and debugger is a program that is used as an aid to removing bugs from program. Debugging starts after the code is first written and continues in successive stages as code is combined with other units of programming to produce a result, such as an application or operating system. After a product is released bugs are discovered and then patch is released from the originators of the code. A patch is a piece of object code that is used to fix a known program bug. It is also available free of cost over the Internet to download.

7. **Disk defragmentation** : Fragmentation happens to a hard disk over times as we save, change or delete files. Disk defragmenter is a tool that rearranges the data on hard disk and reunites fragmented files so computer can run more efficiently.

**Device driver** : A device driver or software driver is a computer program that allows high-level computer programs to interact with a hardware device. A driver interacts with the device through the bus or communications subsystem to which the hardware connects. Device drivers are hardware dependent.

## **Application software**

Applications software perform the specific jobs for the user such as producing a payroll, or stock control program or solving problem etc. It is on top of systems software because it is unable to run without the operating system and system utilities. It includes programs that do real work for users. It is also called end-user programs and it includes word processors, spreadsheets, and database management systems etc.

There are two types of application software

1. **Special purpose application software** : Special purpose Software is a type of software that can only be used for only one specific thing. For example weather forecasting, aeroplane control etc.

2. **General purpose application software** : General purpose application software is generally tools that provide specific capabilities, but not in support of a specific purpose. For example, a spreadsheet program is a general purpose application.

There are some general application packages : Application packages are programs available in market for use in computer.

1. **Electronic Spreadsheet** : It is a computer software allowing large numbers of mathematical computations on numbers arranged in rows and columns, in which the numbers can depend on the values in other rows and columns, allowing large numbers of calculations to be carried out simultaneously. We can also represent these numbers in graph and charts. Examples are MS Excel, Lotus 123, K-spread, Open Calc and Star Calc etc.

2. **Word Processor** : It is a computer software that is used to create written documents on the screen and lets go back to edit and make corrections as necessary. It can be printed and stored on disk. Examples are MS Word, Word star, Word perfect etc.

3. **Computer Graphics** : It is a computer program that is used to create and amend design, graphs, charts etc. Examples are CAD/CAM, Harvard graphics.

4. **Desktop Publishing** : DTP software is used to produce high quality publications at low cost. It takes in text created on a word processor or input direct to the DTP system and combine this electronically with a variety of graphic element and the resulting completed pages are then printed on a high resolution output device. Examples are Page-Maker, Coral Draw and Microsoft Publisher etc.

5. **Database package** : It allow users to manipulate large amounts of information and retrieve any part of the information that is of interest. It is electronic filling system which allow us to define what information we wish to store and then provide powerful facilities for entering, changing, sorting, searching and reporting the information. Examples are D-base, MS-Access etc.

6. **Report generator** : It extracts data from a database and creates different kind of reports to meet user's requests. Examples are RPG.

7. **Accounting Package** : A computer program that performs accounting operations, bank accounts, stock, income and automated cheque writing and record keeping. Examples are Tally etc.

**8. Presentation Software :** Presentation software is used to create presentations of slides containing text and graphics. It typically includes three major functions: an editor that allows text to be inserted and formatted, a method for inserting and manipulating graphic images and a slide-show system to display the content. Examples are MS Power-Point, Freelance, page etc. it is also called presentation graphics.

Operating System	Word Processing	Spreadsheet	Presentation	Database
MS-DOS	Word Star	Lotus 1-2-3		D base
MS-Windows	Word Pad	MS-Excel	MS-Power Point	MS-Access
	MS-Word		Page Maker	
Linux	K-Word	K-Spread	K-Presentes	
	Ab-Word	Open Calc		
	Open writer	Star Calc	Star Impress	Star Base
	Star writer			

**Turnkey system** : A computer system that has been customized for a particular application. The term derives from the idea that the end user can just turn a key and the system is ready to go. Turnkey systems include all the hardware and software necessary for the particular application.

**Free ware :** It is a software offered free of charge, downloadable from the internet. Ex.- Instant messaging and Google tool bar.

## Objective Question

- ..... is a program which make easy to use a computer.  
(a) Operating system (b) Application (c) Utility  
(d) Network (e) None of these
  - An error in a program which causes wrong result is called a ..... .  
(a) bug (b) byte (c) attributes  
(d) init problem (e) none of these
  - Each component of computer is either ..... .  
(a) hardware or software (b) software or CPU/RAM  
(c) application software (d) input devices or output devices  
(e) none of these
  - The main purpose of software is to convert data into ..... .  
(a) web site (b) information (c) program  
(d) object (e) none of these
  - ..... is a process of searching bugs in software.  
(a) Compiling (b) Testing (c) Running  
(d) Debugging (e) None of these
  - What is virtual memory ?  
(a) Memory of hard disk which is used by CPU as extended RAM  
(b) Located in RAM  
(c) It needs when there is no any RAM in computer  
(d) Backup device for floppy discs (e) None of these

7. The ..... tells the computer how to use its components.
  - (a) utility
  - (b) application
  - (c) operating system
  - (d) network
  - (e) none of these
8. The transfer of data from a CPU to peripheral devices of computer is achieved through—
  - (a) Modems
  - (b) Computer ports
  - (c) Interfaces
  - (d) Buffer memory
9. Repair for known software bug, which is generally available free of cost on internet is called ..... .
  - (a) Version
  - (b) Patch
  - (c) Tutorials
  - (d) FAQ
  - (e) None of these
10. What is backup ?
  - (a) Connect his network to more component
  - (b) Copy to save a data from original source to other destination
  - (c) Filter an old data from new data
  - (d) Access data from tape
  - (e) None of these
11. The ..... manual tells you how to use a software program.
  - (a) Documentation
  - (b) Programming
  - (c) User
  - (d) Technical
  - (e) Designer
12. A (n) ..... is a set of programs designed to manage the resources of a computer, including starting the computer, managing programs, managing memory and coordinating tasks between input and output devices.
  - (a) Application suite
  - (b) Compiler
  - (c) Input/output system
  - (d) Interface
  - (e) Operating system (OS)
13. The set of instructions which tells a computer what to do is called .... .
  - (a) matter
  - (b) instructor
  - (c) compiler
  - (d) program
  - (e) debugger
14. Linux is an example of .... .
  - (a) Freeware
  - (b) Open sources software
  - (c) Shareware
  - (d) Complimentary
  - (e) None of these
15. The physical structure of a computer is called a .... .
  - (a) hardware
  - (b) software
  - (c) keyboard
  - (d) memory
  - (e) none of these
16. Generally which software uses to keep record of data ?
  - (a) Database software
  - (b) Word processing software
  - (c) Operating system
  - (d) Utility software
  - (e) None of these
17. Which database package uses on Ms-DOS based personal computers?
  - (a) D base 3
  - (b) Coral
  - (c) Word star
  - (d) Auto CAD
  - (e) None of these
18. DOS stands for .... .
  - (a) Disc of system
  - (b) Disc operating system
  - (c) Device operating system
  - (d) Door operating system
  - (e) None of these

- 19.** To work on a computer mainly we need .....  
 (a) hardware (b) software (c) scanner  
 (d) a and b both (e) none of these
- 20.** Tangible, physical computer equipment that can be seen and touched is called .....  
 (a) Hardware (b) Software (c) Storage  
 (d) Input/output (e) None of these
- 21.** A collection of programs that controls how the computer system runs and processes information is called—  
 (a) Compiler (b) Linker  
 (c) Operating System (d) Assembler
- 22.** When was Unix developed ?  
 (a) 1950 (b) 1955 (c) 1960  
 (d) 1969 (e) None of these
- 23.** Basic language of Unix is .....  
 (a) Cobol (b) Basic (c) Assembly  
 (d) Java (e) None of these
- 24.** What is Linux ?  
 (a) An operating system (b) A software  
 (c) A site (d) A graphics (e) None of these
- 25.** Which software for work at is uses a computer ?  
 (a) System (b) Application (c) Program  
 (d) Package (e) None of these
- 26.** A software which controls the hardware of a computer is .....  
 (a) application (b) system (c) program  
 (d) memory (e) none of these
- 27.** A computer converts a high level program into a low level program with the help of .....  
 (a) compiler (b) interpreter (c) (a) and (b) both  
 (d) package (e) none of these
- 28.** In a computer which is the main part of system software ?  
 (a) Compiler (b) Interpreter (c) Operating system  
 (d) Package (e) None of these
- 29.** A program available in the market to use in a computer is called ....  
 (a) software program (b) software package (c) software system  
 (d) software language (e) none of these
- 30.** What is turnkey system ?  
 (a) Complete hardware and software (b) Complete language  
 (c) Complete software (d) Complete hardware (e) None of these
- 31.** Who developed Unix ?  
 (a) Rod Fenson (b) Ken Thompson (c) Ramavart Cathrin  
 (d) Jahnson (e) None of these
- 32.** Characteristics of Unix are .....  
 (a) At a time more than one work  
 (b) At a time more than one people can work  
 (c) More safe (d) Kernal manages data  
 (e) None of these

33. The set of instruction which tells a computer how to perform any special work is called .....  
 (a) data calculation (b) program (c) file  
 (d) information (e) none of these
34. Which of the following works as an agent between hardware and user?  
 (a) Compiler (b) Operating system (c) Translator  
 (d) All of these (e) None of these
35. Programs written in an assembly language are converted into machine language in a computer by .....  
 (a) assembler (b) compiler (c) interpreter  
 (d) processor (e) none of these
36. Any program translated into machine language is called .....  
 (a) analog program (b) object code (c) personal program  
 (d) official program (e) none of these
37. The original program written in programming language is called ....  
 (a) Youth program (b) Source program (c) Ferm program  
 (d) Loop program (e) None of these
38. The word CAD is related to .....  
 (a) account (b) design (c) media  
 (d) science (e) arts
39. What is the use of backup in a database ?  
 (a) To check the working of the system (b) For safety  
 (c) To provide record of transaction (d) To find the lost data  
 (e) None of these
40. Page maker software is related to which operating system ?  
 (a) MS-DOS (b) Unix (c) Windows  
 (d) All of these (e) None of these
41. A Software which converts a high level language program into machine language is called—  
 (a) Compiler (b) Assemble (c) Loader  
 (d) Interpreter (e) None of these
42. Oracle is a .....  
 (a) An operating system (b) Word processor  
 (c) Database software (d) All of these  
 (e) None of these
43. Which software is used in word processing ?  
 (a) Page maker (b) Word star (c) MS-Word  
 (d) All (e) None of these
44. CAD stands for—  
 (a) Computer algorithm for design  
 (b) Computer aided design (c) Computer application in design  
 (d) All of these (e) None of these
45. The function of an assembler is .....  
 (a) To convert basic language into machine language  
 (b) To convert high level language into machine language  
 (c) To convert assemble language into machine language

- (d) To convert assemble language into high level language  
 (e) None of these
- 46.** The legal right to use software based on specific restrictions is granted via a .....
- (a) Software privacy policy      (b) Software license  
 (c) Software password manager      (d) Software log  
 (e) None of these
- 47.** Which software is used for creating resume ?
- (a) MS-Word      (b) Page maker      (c) a and b both  
 (d) Java      (e) None of these
- 48.** MS-Word is an example of—
- (a) Operating system      (b) Application software  
 (c) Processing device      (d) Input device  
 (e) None of these
- 49.** People who write and test the programs are called—
- (a) Programmer      (b) Computer scientists  
 (c) Software engineer      (d) Project developer  
 (e) None of these
- 50.** When you turn on the computer, the boot routine will perform this test—
- (a) RAM test      (b) Disk drive test      (c) Memory test  
 (d) Power-on-self-test (e) None of these
- 51.** A detailed written description of the programming cycle and the program, along with the test results and a printout of the program is called .....
- (a) Documentation      (b) Output      (c) Reporting  
 (d) Spec sheets      (e) Directory
- 52.** After turns on computer light the process of start is called .....
- (a) application      (b) system      (c) boot strap  
 (d) strap      (e) none of these
- 53.** The type of software that controls the internal operations in the computer and controls how the computer works with all its parts is which of the following ?
- (a) Shareware      (b) Public domain software  
 (c) Application software      (d) Operating system software  
 (e) None of these
- 54.** Physical components that make up your computer are known as .....
- (a) Operating system (b) Software      (c) Hardware  
 (d) Web browsers      (e) None of these
- 55.** What is correcting errors in a program called ?
- (a) Compiling      (b) Debugging      (c) Grinding  
 (d) Interpreting      (e) None of these
- 56.** A compiler translates a program written in a high level language into .....
- (a) machine language      (b) an algorithm  
 (c) a debugged program      (d) java  
 (e) none of these

57. The ..... of a system includes the programs or instructions.  
 (a) hardware (b) icon (c) information  
 (d) software (e) none of these
58. This can be another word for program—  
 (a) Software (b) Disk (c) Floppy  
 (d) Hardware (e) None of these
59. The person who writes and tests computer program is called a .... .  
 (a) Programmer (b) Computer scientist (c) Software engineer  
 (d) Project developer (e) None of these
60. Hardware includes—  
 (a) All devices used to input data into a computer  
 (b) Sets of instructions that a computer runs or executes  
 (c) The computer and all the devices connected to it that are used to input and output data  
 (d) All devices involved in processing information including the CPU, memory and storage  
 (e) None of these
61. The role of a ..... generally is to determine buyers, needs and mate it to the correct hardware and software.  
 (a) computer scientist (b) computer sales representative  
 (c) computer consultant (d) corporate trainer  
 (e) none of these
62. Which is the part of a computer that one can touch and feel ?  
 (a) Hardware (b) Software (c) Programs  
 (d) output (e) None of these
63. A series of instructions that tells a computer what to do and how to do it is called a .....  
 (a) program (b) command (c) user response  
 (d) processor (e) none of these
64. What happens when you boot up a PC ?  
 (a) Portions of the operating system are copied from disk into memory  
 (b) Portions of the operating system are copied from memory onto disk  
 (c) Portions of the operating system are compiled  
 (d) Portions of the operating system are emulated  
 (e) The PC gets switched off
65. Which of the following statements is true concerning ?  
 (a) Virtual memory is the space on the hard drive where to the O.S. begins to store data when it because memory bound  
 (b) Accessing data from RAM is slower than accessing data from virtual memory  
 (c) Both of these  
 (d) If a computer is memory bound, adding more RAM will not solve the problem  
 (e) None of these
66. Copying computer program or software without permission of its author is called—  
 (a) Highway robbery (b) Larceny (c) Software piracy  
 (d) Embezzlement (e) None of these

67. Peripheral devices such as printers and monitors are considered to be  
(a) Hardware (b) Software (c) Data  
(d) Information (e) None of these
68. Another word for software is .....  
(a) input (b) output (c) program  
(d) system (e) none of these
69. Antivirus software is an example of .....  
(a) business software (b) an operating system (c) a security utility  
(d) an office suite (e) none of these
70. A ..... backup contains a copy of every program, data and system file on a computer.  
(a) restoration (b) bootstrap (c) differential  
(d) full (e) none of these
71. Restarting a computer that is already on is referred to as—  
(a) Shut down (b) Cold booting (c) Warm booting  
(d) Logging off (e) None of these
72. Which is not an item of hardware ?  
(a) An MP3 file (b) A keyboard (c) A monitor  
(d) A mouse (e) None of these
73. Compatibility in regard to computers refers to .....  
(a) The software doing the right job for the user  
(b) It being versatile enough to handle the job  
(c) The software being able to run on the computer  
(d) Software running with other previously installed software  
(e) None of these
74. A device that is connected to the motherboard is .....  
(a) called an external device (b) called an adjunct device  
(c) called a peripheral device  
(d) must connect using ribbon cable  
(e) none of these
75. Documentation of computer programs is important so that .....  
(a) users can learn how to use the program  
(b) other programmers can know how to maintain the program  
(c) the programmer can see why the code is written that way while hunting for sources of error  
(d) all of the above (e) none of these
76. The process of preparing a floppy diskette for use is called .....  
(a) assembling (b) translating (c) parsing  
(d) formatting (e) none of these
77. The physical components of a computer system .....  
(a) software (b) hardware (c) ALU  
(d) control unit (e) none of these
78. The ability of an OS to run more than one application at a time is called .....  
(a) multitasking (b) object-oriented programming  
(c) multi-user computing (d) time-sharing  
(e) none of these

79. Developing sets of instructions for the computer to follow and to do the task the same way as many times as needed is called ..... .  
(a) listing (b) sequencing (c) programming  
(d) directing (e) none of these

80. The term used to define all input and output devices in a computer system is ..... .  
(a) monitor (b) software (c) shared resources  
(d) hardware (e) none of these

81. Which is not an item of hardware ?  
(a) An MP3 File (b) A keyboard (c) A Disk drive  
(d) A Monitor (e) None of these

82. Which of the following is not an example of hardware ?  
(a) Mouse (b) Printer (c) Monitor  
(d) Excel (e) None of these

83. Hardware devices that are not part of the main computer system and are often added later to the system are ..... .  
(a) clip art (b) highlight (c) execute  
(d) peripherals (e) none of these

84. A computer cannot "boot" if it does not have the ..... .  
(a) compiler (b) loader (c) operating system  
(d) assembler (e) none of these

85. Programs designed specifically to address general-purpose applications and special-purpose applications are called ..... .  
(a) operating system (b) system software  
(c) application software  
(d) management information systems  
(e) none of these

86. What is the name for the process that is used to convert a series of instructions or programs, written in a high-level language into instructions (or a program) that can be run on a computer ?  
(a) Assembling (b) Compiling (c) Translating  
(d) Uploading (e) None of these

87. Which of the following peripheral devices displays information to a user ?  
(a) Monitor (b) Keyboard  
(c) Secondary storage devices (d) Secondary storage media  
(e) None of these

88. An assembler is used to translate a program written in ..... .  
(a) A low level language (b) Machine language  
(c) A high level language (d) Assembly language  
(e) None of these

89. The capability of the operating system to enable two or more than two programs to execute simultaneously in a single computer system by using a single processor is ..... .  
(a) multiprocessing (b) multitasking (c) multiprogramming  
(d) multi execution (e) none of these

- 90.** A program which helps create written documents and lets you go back and make corrections as necessary .....
- Spreadsheet
  - Personal writer
  - Word printer
  - Word processor
  - None of these
- 91.** Start or restart of the computer .....
- Exit
  - Kick
  - Boot
  - Kick-start
  - None of these
- 92.** ..... is when the computer is turned on and the operating system is loading.
- Booting
  - Flashing
  - Tracking
  - Taping
  - None of these
- 93.** A compiler is used to translate a program written in .....
- a low level language
  - a high level language
  - assembly language
  - machine language
  - none of these
- 94.** Computer programs are also known as .....
- operating systems
  - documents
  - peripherals
  - applications
  - none of these
- 95.** The operating system is the most common type of ..... software.
- communication
  - application
  - system
  - word-processing
  - none of these
- 96.** In Windows 95 as a word processing is .....
- Unix
  - Write pro
  - Word
  - Animation
  - None of these
- 97.** A computer system includes .....
- hardware
  - software
  - peripheral devices
  - All of these
  - none of these
- 98.** One who designs, writes tests and maintains computer programs is called a .....
- User
  - Programmer
  - Designer
  - Operator
  - none of these
- 99.** The human-readable version of a program is called .....
- source code
  - program code
  - human code
  - system code
  - None of these
- 100.** A (n) ..... converts and executes one statement at a time.
- compiler
  - interpreter
  - converter
  - instructions
  - None of these
- 101.** The term ..... designates equipment that might be added to a computer system to enhance its functionality.
- digital device
  - system add-on
  - disk pack
  - peripheral device
  - None of these
- 102.** Which is the best definition of a software package ?
- An add-on for your computer such as additional memory
  - A set of computer programs used for a certain function such as word processing



- 112.** The ..... manual tells you how to use a software program.  
(a) documentation (b) programming (c) technical  
(d) user (e) None of these
- 113.** A computer cannot "boot" if it does not have the ..... .  
(a) Compiler (b) Loader (c) Operating System  
(d) Assembler (e) None of these
- 114.** The combination of operating system and processor in a computer is referred to as a computers' ..... .  
(a) firmware (b) specifications  
(c) minimum requirements (d) platform  
(e) None of these
- 115.** What is software ?  
(a) A type of computer code (b) A computer language  
(c) A set of instructions for your computer  
(d) A cover for the computer (e) None of these
- 116.** What are two example of freeware ?  
(a) WinZip and Linux (b) Shareware and file sharing  
(c) Microsoft Word and the Google toolbar  
(d) Instant messaging and the Google toolbar  
(e) Microsoft Power Point and Microsoft Excel
- 117.** Vendor-created program modifications are called ..... .  
(a) patches (b) antivirus (c) holes  
(d) fixes (e) overlaps
- 118.** Every computer has a(n) ..... ; many also have ..... .  
(a) Operating system; a client system  
(b) Operating system; instruction sets  
(c) application programs; an operating system  
(d) application programs; a client system  
(e) operating system; application programs
- 119.** Which of the following is not a type of computer software whcih can be bought ?  
(a) Off-the-shelf (b) Tailor-made (c) Custom-developed  
(d) Off-the-shelf with alterations  
(e) All of these can be purchased
- 120.** Computer software can be defined as ..... .  
(a) the computer and its associated equipment  
(b) the instructions that tell the computer what to do  
(c) computer components that act to accomplish a goal  
(d) an interface between the computer and the network  
(e) the interaction between the computer and its database.
- 121.** Computer equipment itself is called ..... .  
(a) hardware (b) byte (c) mouse  
(d) software (e) default
- 122.** A..... is the general term for hardware not necessary to the basic function of the computer, connected externally.  
(a) icon (b) bit (c) keyboard  
(d) printer (e) peripheral
- 123.** The ..... of a system includes the programs or instructions.  
(a) peripheral (b) software (c) information  
(d) icon (e) hardware

**124.** A(n) .... backup contains a copy of every program, data, and system file on a computer.

- (a) restoration      (b) bootstrap      (c) differential  
 (d) full      (e) None of these

**125.** Every component of your computer is either .....

- (a) application software or system software  
 (b) software or CPU/RAM      (c) hardware or software  
 (d) input devices or output devices      (e) None of these

**126.** All the characters that a device can use is called is ?

- (a) Skill set      (b) Character alphabet (c) Characters codes  
 (d) Keyboard characters (e) Character set

**127.** "Booting the System" means—

- (a) Loading the operating system (b) Dismissing the computer  
 (c) Running an application program called 'Booting'  
 (d) Physically kicking the computer

**128.** A compiler is—

- (a) A program which translates an assembly language program into machine language  
 (b) Any program written in machine language  
 (c) A program which translates a high level language into machine language  
 (d) A program which translates a program written in a high level language to another high level language

**129.** In MS-DOS, the command that is used to clear the screen is :

- (a) CIS      (b) Clear  
 (c) Clear screen      (d) Wipe

**130.** Pick the odd man out.

- (a) UNIX      (b) MS-DOS      (c) WINDOWS 98  
 (d) ACCESS

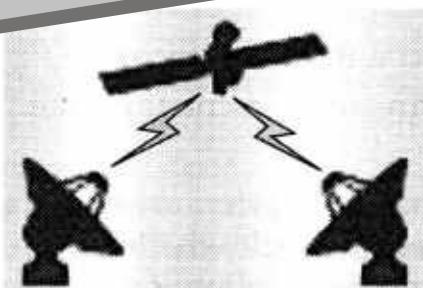
**131.** Related to computers, what is meant by 'software' ?

- (a) Computer programs      (b) Computer circuitry  
 (c) Human brain      (d) Floppy discs

### Answers

- |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|
| 1. (c)   | 2. (a)   | 3. (a)   | 4. (b)   | 5. (d)   | 6. (a)   | 7. (a)   |
| 8. (c)   | 9. (b)   | 10. (b)  | 11. (c)  | 12. (e)  | 13. (d)  | 14. (b)  |
| 15. (a)  | 16. (a)  | 17. (a)  | 18. (b)  | 19. (d)  | 20. (a)  | 21. (b)  |
| 22. (d)  | 23. (c)  | 24. (a)  | 25. (b)  | 26. (b)  | 27. (c)  | 28. (c)  |
| 29. (b)  | 30. (a)  | 31. (b)  | 32. (e)  | 33. (b)  | 34. (b)  | 35. (a)  |
| 36. (b)  | 37. (b)  | 38. (b)  | 39. (d)  | 40. (c)  | 41. (a)  | 42. (c)  |
| 43. (d)  | 44. (b)  | 45. (c)  | 46. (b)  | 47. (c)  | 48. (b)  | 49. (a)  |
| 50. (d)  | 51. (a)  | 52. (c)  | 53. (d)  | 54. (c)  | 55. (b)  | 56. (a)  |
| 57. (d)  | 58. (a)  | 59. (a)  | 60. (c)  | 61. (b)  | 62. (a)  | 63. (a)  |
| 64. (a)  | 65. (a)  | 66. (c)  | 67. (a)  | 68. (c)  | 69. (c)  | 70. (d)  |
| 71. (c)  | 72. (a)  | 73. (d)  | 74. (c)  | 75. (d)  | 76. (d)  | 77. (b)  |
| 78. (a)  | 79. (c)  | 80. (d)  | 81. (a)  | 82. (d)  | 83. (d)  | 84. (c)  |
| 85. (c)  | 86. (b)  | 87. (a)  | 88. (d)  | 89. (b)  | 90. (d)  | 91. (c)  |
| 92. (a)  | 93. (b)  | 94. (d)  | 95. (c)  | 96. (c)  | 97. (d)  | 98. (b)  |
| 99. (a)  | 100. (b) | 101. (d) | 102. (b) | 103. (b) | 104. (c) | 105. (b) |
| 106. (d) | 107. (a) | 108. (a) | 109. (a) | 110. (c) | 111. (b) | 112. (d) |
| 113. (c) | 114. (d) | 115. (c) | 116. (d) | 117. (a) | 118. (e) | 119. (e) |
| 120. (b) | 121. (a) | 122. (e) | 123. (b) | 124. (d) | 125. (c) | 126. (e) |
| 127. (a) | 128. (c) | 129. (a) | 130. (d) | 131. (a) |          |          |

★ ★ ★



# Data Communication

## Introduction

Data communication is the transmission of coded data between remote terminals and a centralized computer installation, or between two or more computer centers over established communication links.

## Advantages of Data Communication System

- Saving of time in data preparation and physical transportation of prepared data.
- Full utilization of processing power and storage capacity of modern computer.
- Quick retrieval of information from files.
- Eliminates duplication of files.
- Reducing the cost of data transmission.

## Types of transmission channel

There are mainly two types of transmission channel

### 1. Simplex Channel :

**A (Sender)**  $\xrightarrow{\hspace{1cm}}$  **B (Receiver)**

In this channel transmission of data is always in one direction, i.e. after receiving the radio signal from radio-station, the receiver can't send back the signal to radio-station. Transmission always flows from A to B.

### 2. Half Duplex Channel :

**A (Sender)**  $\xleftarrow{\hspace{1cm}} \xrightarrow{\hspace{1cm}}$  **B (Receiver)**

In this channel transmission of data is in both directions, but at any one instant of time it is only in one direction. It means there is flow of transmission from either A to B or from B to A at one time, such as telephone line.

### 3. Full Duplex Channel :

**A (Sender)**  $\xleftarrow{\hspace{1cm}} \xrightarrow{\hspace{1cm}}$  **B (Receiver)**

In this channel transmission of data is in both directions simultaneously. It means there is flow of transmission from A to B and from B to A at any one instant of time.

**Parity Check :** In communication parity bit is used to check data that has been transmitted accurately. The parity bit is added to every data unit that are transmitted. The parity bit for each unit is set so that all bytes have either an odd number or an even number of number 1s. Parity bits are used as the simplest form of error detecting code.

**Information Transfer speed :** Information Transfer speed is measured by bit and baud rate.

Bit rate indicates the speed of bits transmitted within one second.

Baud rate counts the number of times of a transmission change state.

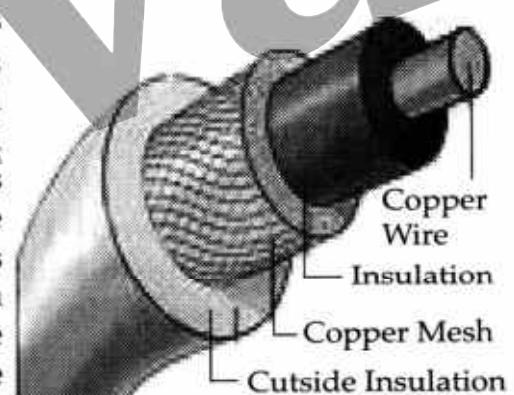
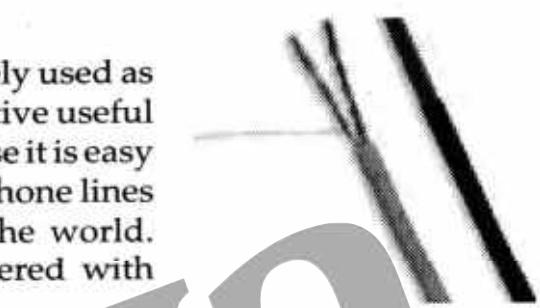
### **Data communication channels**

Data is transmitted from a terminal to a computer system or from a computer system to a terminal over communication channels which are also called communication lines or data links. They are of the following types:

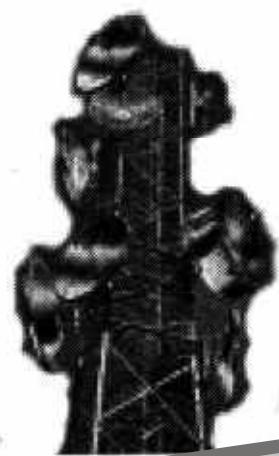
1. Standard telephone line
2. Coaxial cables
3. Microwave transmission
4. Satellite communications
5. Fiber optics.

**1. Standard telephone line :** It is widely used as communication channels. It is very effective useful to the user of data communication because it is easy to join and the complex network of telephone lines has been already established all over the world. It consists of two wires of copper covered with insulator.

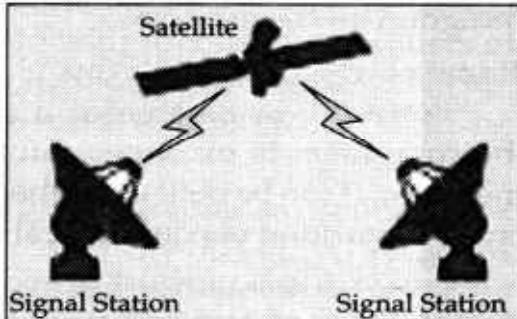
**2. Coaxial cable :** These are high quality communication lines that have been under the ground or sea. These cables are also used for data communication. A type of wire that consists of a centre wire surrounded by insulation and then a grounded shield of braided wire. The shield minimizes electrical and radio frequency interference. The layers of insulation help minimize interference and distortion. Transmission speed ranges from 200 million to more than 500 million bits per second. Coaxial cabling is the primary type of cabling used by the cable television industry and is also widely used for computer networks, such as Ethernet. Although it is more expensive than a standard telephone wire, it is much less susceptible to interference and can carry much more data.



**3. Microwave transmission :** It transmits signals through open space like radio signal. It provides a much faster transmission rate than telephone line or coaxial cable. In this system data transmits on a line of sight path and needs antenna. Microwave antennas are usually placed on top of buildings, towers, hills, and mountain peaks. It consists of series of relay stations approximately 30 miles apart. For transmitting to long distances, signals are amplified and retransmitted from station to station. It provides higher bandwidth but it is affected by rain, dust, cloud and bad weather. It is used in cellular network and television broadcasting.



**4. Satellite Communication :** A satellite communication is known for fast communication. It is ideal for long distance communication. An artificial satellite station positioned in space for the purpose of telecommunications. These satellites serve as relay stations for the transmission of signals generated from the earth. The satellite amplifies signal received from one earth station and retransmits the signals to another earth station which can be located many thousands of miles away. They are also used for mobile applications such as communications to ships, vehicles, planes and hand-held terminals, and for TV and radio broadcasting, for which application of other technologies, such as cable, is impractical or impossible.



**5. Fiber Optics :** These cables consist of one or more thin filaments of glass fiber wrapped in a protective layer. It is a new technology that may serve to replace conventional wire and cable in communication. It is a glass or plastic fiber that carries light along its length. Optical fibers are widely used in fiber optic communications, which permits transmission over longer distances and at higher bandwidths than other forms of communications. It works on the theory of total internal reflection. It is free from radio frequency interference. The speed of fiber optics is hundreds of times faster than coaxial cables and thousands of times faster than twisted-pair wire.



### Network

A computer network is a group of computers that are connected to each other for the purpose of communication. A computer network allows computers to communicate with many other computers and to share resources and information. It is a combination of hardware and software, which provide facility of sending and receiving of information between computers or sharing of information between computing devices. To establish any network needs sender, receiver, medium and protocol. ARPANET was the first operational computer network in the world.

#### Computer networks can be used for several purposes

1. **Facilitating communications :** Using a network, people can communicate efficiently and easily via e-mail, instant messaging, chat rooms, telephone, video telephone calls, and video conferencing.

2. **Sharing hardware :** In a network environment, each computer on a network can access and use hardware on the network. Suppose several personal computers are on a network and each requires the use of a laser printer. If the personal computers and a laser printer are connected to a network, each user can then access the laser printer on the network, as they need it.

3. **Sharing files, data, and information :** In a network environment, any authorized user can access data and information stored on other computers

on the network. The capability of providing access to data and information on shared storage devices is an important feature of many networks.

**4. Sharing software :** Users connected to a network can access application program on the network.

### Some network related terms

**Protocol :** A protocol is a set of rules and standards which is used by computers to exchange information or data with each other across a network. It can be defined as the rules governing the syntax, semantics, and synchronization of communication.

**Nodes :** In a network a node is a connection point where either data transmission ends or redistribution of data starts.

**Server :** A server is a main computer that manages resources to other computers connected to a network. Any user on the network can access the resources store on the server. It is main and powerful computer on network. It is a central computer which holds collection of data and program for PCs, workstation and other computers. Servers are often dedicated, meaning that they perform no other tasks besides their server tasks. A server in this case could refer to the program that is managing resources rather than the entire computer. Server is a computer which provides resources to other computers connected in a network. Server computer needs to be fast and to have a large storage capacity hard disk and lots of RAM.

**Terminal :** In data communication terminal is a computer equipment at the end of the link from the host processor. The terminal may be another computer or a general purpose terminal device such as keyboard, VDU or a special purpose terminal cash registers, banking terminals. A computer terminal is an electronic device that is used for entering data into, and displaying data from a computer. It is used to share the resources of mainframe or supercomputer.

**Dumb terminals :** Dumb terminals are display and input devices which don't process data and input locally, instead transmitting input to a computer to which it is connected and displaying the resulting output. A dumb terminal refers to a monitor and keyboard that have no processing power of their own. It is simply an input and output device wired into another computer.

### Networking device

There are devices to establish a network :

1. Repeaters, 2. Hub, 3. Switches, 4. Routers, 5. Gateways

### Types of Network :

There are different types of network

**1. Local Area Network (LAN) :** A local area network is a computer network covering a small geographical area like a home, office, or small group of buildings, such as a school, or an airport. It is small in size but usually provides higher data-transfer rates. It is suitable for small sites. Computers connected to a LAN can share information and share peripheral equipments. At present LAN is based on Ethernet technique.

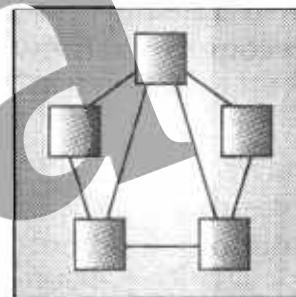
**2. Wide Area network (WAN) :** A wide area network is a computer network that covers a broad area such as any network whose communications links cross metropolitan, regional, or national boundaries. WANs are used to connect LANs and other types of networks together, so that users and computers in one location can communicate with users and computers in other locations. WANs are often built using leased lines or switched circuit. Internet, Indonet developed by CMC in India and ATM services of bank are good examples of WAN.

**3. Metropolitan Area network (MAN) :** A metropolitan area network is a large computer network that usually spans a city or a large campus. A MAN usually interconnects a number of local area networks and provides up-link services to wide area networks and the Internet. Routers, switch and hub all together forms a MAN.

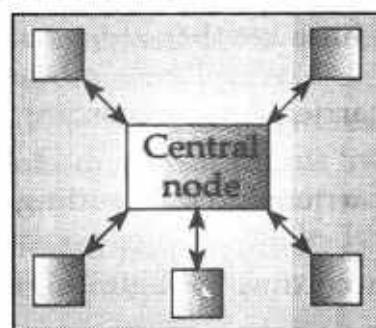
### Network Topology

There are different types of network topology -

**1. Mesh Network :** Mesh networking is a type of networking wherein each node in the network may act as an independent router, regardless of whether it is connected to another network or not. It may be used for instances of high traffic conditions to provide alternate routes for transmission. It allows for continuous connections and reconfiguration around broken or blocked paths by "hopping" from node to node until the destination is reached. A mesh network whose nodes are all connected to each other is called a fully connected network. The cost of fully connected mesh network is high because of large amount of cable required and each node required intelligence. As a result, the network may typically be very reliable, as there is often more than one path between a source and a destination in the network.

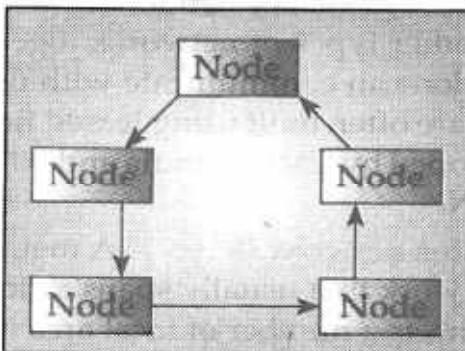


**2. Star Network :** Star networks are one of the most common computer network topologies. In star network consists of one central node which has intelligence called hub. Thus hub, other nodes and the transmission lines between them form a graph with the topology of a star. The star topology reduces the chance of network failure by connecting all of the systems to a central node. The failure of any one transmission line linking any peripheral node to the central node will result in the isolation of that peripheral node from all others, but the rest of the systems will be unaffected. If the central node fails then the whole system goes fails.

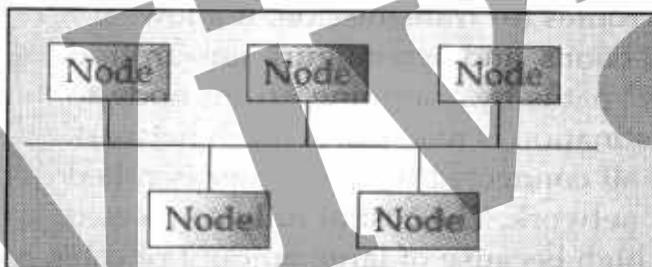


**3. Ring Network :** A ring network is a network topology in which each node has equal amount of intelligence. The direction of data flow around the ring is usually one way. Each node connects to exactly two other nodes, forming a single continuous pathway for signals through each node like a ring. Because a ring topology provides only one pathway between any two

nodes, ring networks may be disrupted by the failure of a single link. A node failure or cable break might isolate every node attached to the ring.



**4. Bus Network :** A bus network topology is a network in which a set of nodes are connected by a single communications line, called a bus. Bus networks are the simplest way to connect multiple nodes, but may have problems when two nodes want to transmit at the same time on the same bus. When a node wishes to transmit data to another node it must listen to the bus to see if anyone else is transmitting. If no data is on the bus then it will transmit. The node must be intelligent enough to listen to the bus and recognize their own address in order to receive incoming data.



**Modulation :** Modulation is used to send an information bearing signal over long distances. It usually involves varying one waveform in relation to another waveform. Modulation is a process to change the analog signal to digital signal and digital signal to analog signal. A device that performs these operations is called a modem.

**There are three types of modulation**

1. Amplitude modulation : It is a process to change the amplitude of carrier signal according to digital signal having information.
2. Frequency modulation : It is a process to change the frequency of carrier signal according to digital signal having information.
3. Phase modulation : It is a process to change the phase of carrier signal according to digital signal having information.

### **Data Transmission Service**

The service used to transmit data from one place to another place is called data transmission service and the organisation which provide this service is called data transmission service provider.

1. VSNL ( Videsh Sanchar Nigam Limited )
2. BSNL ( Bharat Sanchar Nigam Limited)
3. MTNL ( Mahanagar Telephone Nigam Limited)

### Various Data Transmission Services

1. Dial up lines : Dial up lines are related with telephone connection which are connected to a telephone connection in a system of many lines shared by many users. It is used by dialing the number like telephone and it is used to already established telephone lines over the world. Dial-up lines are sometimes called switched lines. Broad band technique is also used by dial up lines.

2. Digital subscriber line (DSL) : DSL is a very high-speed internet connection that uses the same wires as a regular telephone line. The speed is much higher than a regular modem. DSL doesn't necessarily require new wiring; it can use the phone line we already have.

3. Leased line : A leased line connects the two locations for voice and data transmission. It is also called dedicated line and it makes transmission possible near and far both. It is not only dedicated line between two points, it is reserved circuit between two points. Generally, leased lines are used by businesses to connect geographically distant branch offices, because it makes sure to provide higher quality bandwidth in network traffic.

4. ISDN (Integrated services Digital Network) : ISDN is used to transmit voice, video, images and data through switched telephone network. Voice, video, images and data are transmitted through this system are noise-free and digital form. There is no need of modem in ISDN because data is transmitted in digital form.

**Network Interface Card** : A network interface card is a hardware component designed to allow computers to communicate over a computer network or enables our computer to connect to other computers. Computer sends and receives data packets in network under a protocol.

**Wireless Technology** : It is a technology which make possible to send or receive data without cable and saves the cable cost,. It uses electromagnetic, microwave and infrared waves etc. at the place of cable. The applications of wireless technology are television remote control, Cellular phone and Wi-fi etc.

**WiMAX (World wide Introporability for Microwave Access)** : It is a wireless transmission of data using a variety of transmission modes. The technology provides up to 10 Mbit/s broadband speed without the need for cables.

**WLL (Wireless Local Loop)** : It is another name for fixed wireless. Wireless local loop is a term for the use of a wireless communications link in which a user connects with network through radio frequency. It is popular to that locations where land-line telephone connection is not available. It is based on CDMA (Code Division Multiple Access) technology.

### Objective Question

1. Users use often ..... for access to mainframe or supercomputer.
 

(a) terminal	(b) node	(c) desktop
(d) hand held	(e) none of these	
2. To create a ..... personal computers can connote together.
 

(a) server	(b) super computer	(c) enterprise
(d) network	(e) none of these	

3. What is used to identify whether a data word has an odd or even number of 1s ?
  - (a) Cary bit
  - (b) Zero bit
  - (c) Parity bit
  - (d) Sign bit
4. A combination of hardware and software, which provides facilities of sending and rationing of information between computer devices.
  - (a) Network
  - (b) Peripheral
  - (c) Expansion slot
  - (d) Digital device
  - (e) None of these
5. Server is a computer which provides resources other computers commuted in a .....
  - (a) network
  - (b) mainframe
  - (c) super computers
  - (d) clients
  - (e) none of these
6. LAN, WAN and MAN are computer networks covering different areas. Their first alphabets L, W and M respectively stand for
  - (a) Local, Wide and Metropolitan
  - (b) Long, Wireless and Metropolitan
  - (c) Local, world and Middle
  - (d) Least, Wireless and Maximum
7. In ..... topology, network components are connected by only one cable.
  - (a) Star
  - (b) Ring
  - (c) Bus
  - (d) Mesh
  - (e) Mixed
8. Two or more than two computers connected to each other for sharing an information forms a .....
  - (a) network
  - (b) router
  - (c) serves
  - (d) tunnel
  - (e) none of these
9. On the large scale, geographically spreaded LAN's office are connected by using .....
  - (a) CAN
  - (b) LAN
  - (c) DAN
  - (d) WAN
  - (e) TAN
10. Which of following is a small single site network ?
  - (a) LAN
  - (b) DSL
  - (c) RAM
  - (d) USB
  - (e) CPU
11. Computer connected with LAN .....
  - (a) work fast
  - (b) go online
  - (c) can e-mail
  - (d) can share information or peripheral devices
  - (e) none of these
12. LAN is useful for .....
  - (a) railway
  - (b) bank
  - (c) businessman
  - (d) transport office
  - (e) none of these
13. Telephone broadcast is an example of ..... transmission.
  - (a) Simplex
  - (b) Half duplex
  - (c) Full duplex
  - (d) Automatic
  - (e) None of these
14. A parity bit is :
  - (a) Used to indicate upper case letters
  - (b) the last bit in a byte
  - (c) the first bit in a byte
  - (d) Use to detect errors

15. The first computer network of the world is .....  
 (a) I net (b) NSF net (c) Arpanet  
 (d) Vnet (e) None of these
16. Which of the following techniques needs source device and destination device in line of sight for data transfer ?  
 (a) LAN (b) Bluetooth (c) WAN  
 (d) Infrared (e) All
17. When more computers are connected at one place, it is called .....  
 (a) LAN (b) WAN (c) Infinite  
 (d) WON (e) DON
18. Bank's ATM facility is an example of .....  
 (a) LAN (b) WAN  
 (c) Mixed networking (d) Multipurpose networking  
 (e) None of these
19. Which of the following is not of the same group ?  
 (a) Internet (b) Apple talk (c) Bus  
 (d) Ring (e) None of these
20. WAN is not useful for—  
 (a) Ministry of Foreign affair (b) Foreign banks  
 (c) Municipality (d) Airport department  
 (e) None of these
21. ..... is a central computer which is concerned with collections of data and programs for PCs workstation and other computers.  
 (a) Super computer (b) Minicomputer (c) Laptop  
 (d) Server (e) None of these
22. A device that connects to a network without the use of cables is said to be .....  
 (a) distributed (b) wireless (c) centralised  
 (d) open Source (e) none of these
23. Several computers linked to a server to share programs and storage space—  
 (a) Network (b) Grouping (c) Library  
 (d) Integrated system (e) None of these
24. Computers connected to a LAN (local area network) can .....  
 (a) run faster (b) go on line  
 (c) share information and/or share peripheral equipment (d) e-mail (e) none of these
25. What type of resource is most likely to be a shared common resource in a computer network ?  
 (a) Keyboards (b) Speakers (c) Floppy disk drives  
 (d) Printers (e) None of these
26. The ..... enables your computer to connect to other computers.  
 (a) Video card (b) Sound card  
 (c) Network interface card (NIC) (d) Controller card  
 (e) None of these

27. A(n) ..... is a small group of computers and peripherals linked together in a small geographic area.  
(a) MAN (b) PAN (c) CAN  
(d) LAN (e) None of these

28. To access a mainframe or supercomputer, users often use a ..... .  
(a) terminal (b) node (c) desktop  
(d) hand held (e) none of these

29. A word in a web page that, when clicked, opens another document.  
(a) Anchor (b) Hyperlink (c) Reference  
(d) URL (e) None of these

30. Dumb terminals have terminals and ..... .  
(a) mouse (b) speakers (c) keyboard  
(d) mouse or speakers (e) none of these

31. A ..... typically connects personal computers within a very limited geographical area, usually within a single building.  
(a) LAN (b) BAN (c) TAN  
(d) NAN (e) None of these

32. Computers connected to a LAN can ..... .  
(a) run faster (b) share information and / or share peripheral equipment  
(c) e-mail (d) go online (e) None of these

33. The most important or powerful computer in a typical network.  
(a) desktop (b) network station (c) network client  
(d) network server (e) None of these

34. Which of the following refers to a small, single-site network ?  
(a) LAN (b) DSL (c) RAM  
(d) USB (e) CPU

35. What type of resource is most likely to be a shared common resource in a computer network ?  
(a) printers (b) speakers (c) floppy disk drives  
(d) keyboards (e) None of these

36. A(n) ..... is a combination of hardware and software that facilitates the sharing of information between computing devices.  
(a) network (b) peripheral (c) expansion board  
(d) digital device (e) None of these

37. A ..... is a set of rules.  
(a) resource locator (b) domain (c) hypertext  
(d) URL (e) protocol

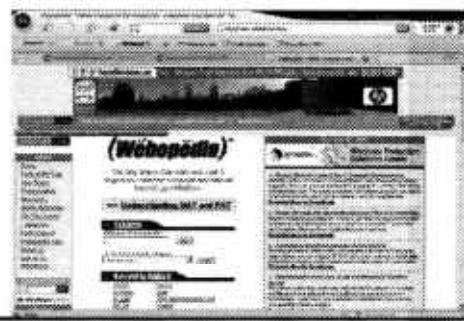
38. Terminal is ..... .  
(a) a device to give power supply to the computer  
(b) a point at which data enters or leaves the computer  
(c) the last instruction in a program  
(d) any input / output device  
(e) None of these

## Answers

- |         |         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|---------|
| 1. (a)  | 2. (d)  | 3. (c)  | 4. (a)  | 5. (a)  | 6. (a)  | 7. (c)  |
| 8. (a)  | 9. (d)  | 10. (a) | 11. (d) | 12. (c) | 13. (b) | 14. (b) |
| 15. (c) | 16. (d) | 17. (a) | 18. (b) | 19. (b) | 20. (c) | 21. (d) |
| 22. (b) | 23. (a) | 24. (c) | 25. (d) | 26. (c) | 27. (d) | 28. (a) |
| 29. (b) | 30. (c) | 31. (a) | 32. (b) | 33. (d) | 34. (a) | 35. (a) |
| 36. (a) | 37. (e) | 38. (b) | 39. (b) | 40. (a) | 41. (d) | 42. (b) |
| 43. (d) | 44. (d) | 45. (a) | 46. (c) |         |         |         |

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# Internet



## Introduction

The Internet is a massive body of networks, a networking infrastructure. It connects millions of computers together globally, forming a network in which any computer can communicate with any other computer as long as they are both connected to the Internet. In other words, it is a global system of interconnected computer networks, connecting millions of computers through which exchange of information such as data, news and opinions etc. is possible. It uses the TCP/IP (Transmission Control Protocol/Internet Protocol) to serve billions of users worldwide. So, TCP/IP can be called backbone of Internet. It is a network of networks that consists of millions of private and public, academic, business, and government networks. The Internet is often called "The Information Highway," that implies that there is a straight, clear path of obtaining information. It connects thousand of computer networks. Each computer in Internet is called a host, is independent. Through telephone wires, Fiber optical cable and satellite links, Internet users can share variety of information.

The Internet is a huge ocean of information of resources and services such as inter-linked hypertext documents of the World Wide Web (WWW), online chatting, online banking, file transfer and sharing, online gaming, online education, books, movies, sports and e-mail etc. It allows users to connect to server all around the world, view web pages and send e-mails etc.

During 1991-1993 commercial use of Internet took its speed. For the first time, on 15 August 1995 VSNL (Videsh Sanchar Nigam Limited) and ISP (Internet Service Provider) launched Internet services in India. The First political party of India is Bharatiya Janata Party, which created its own website on internet. First telephone directory on internet was made available by Sikkim state. India's first Hi-speed rural broadband network has been commissioned in district of Idukki, Kerala.

## Equipment required for using Internet

- |                                    |                   |
|------------------------------------|-------------------|
| 1. Computer                        | 2. Modem          |
| 3. Web browser                     | 4. Telephone line |
| 5. Internet service provider (ISP) |                   |

**Computer :** Any good IBM compatible, Macintosh or UNIX computer that has good storage space 4 GB or more hard disk, 32 MB RAM and 300 MHZ processor.

**Modem :** It is a short form of modulator and demodulator. To connect the Internet through telephone or telecommunications line a modem is required. It is a link between Internet service provider and browser. Our computer sends data in binary code to our modem which converts the binary-coded data to an analogue signal. This data then travels along the telephone network. When the data reaches the destination computer ,the modem connected to that computer converts the analogue signal back into binary coded data which can be read by destination computer. Thus the modem transmits data in pulse form over the network through telephone line. To maintain compatibility in between computer system and telephone line needs modem which converts digital signal to analog signal and analog signal to digital signal. The speed of modem measures in BPS (Bits Per Second).

There are two types of modems :

(i) External Modem and (ii) Internal Modem.

The External Modem has to be connected to our computer and telephone line with cables and electric socket while the Internal Modem is already built inside our computer. The billing of our telephone starts from the moment we get connected to Internet. So a modem with good speed ensures low telephone bills.

**Web Browser :** Web Browser is a software that is used to navigate the world wide web. It connects computer to Internet. Before, start working on the Internet, we make sure that we have a web browser in our computer otherwise, we will not be able to surf the net. The most popular types of browser today are Netscape Navigator and Microsoft Internet Explorer, Mozilla Firefox, Safari, Opera, Chrome etc. We can get available resources from any location through visit site of that location. Each location has a unique address called URL (Uniform Resource Locator), which we type in Web Browser to get resources.

**Internet Service Provider (ISP) :** ISP is an organisation that provides Internet access to users. If we have a computer with a web browser, a modem and a telephone line connected to our computer ,we also need an Internet connection. We can get an Internet connection from various ISPs. Earlier in India, Internet connection was only available through VSNL (Videsh Sanchar Nigam Limited). Now, we can choose from popular Internet service providers of India such as VSNL, BSNL, Satyam online, Mantra on Line, MTNL etc. These companies have DNS servers in different cities of India. DNS server is a computer which translates domain name to IP address.

At present BSNL provides the following types of connections to access Internet to users.

1. PSTN : Public Switched Telephone Network
2. ISDN : Integrated Services digital Network
3. Leased line access
4. Direct Internet Access (DIAS)
5. Account free Internet dial up access based on CLI

**6. Broadband connection:** Broadband service is based on DSL technology (on the same copper cable that is used for connecting telephone). This provides high speed Internet connectivity up to 8 Mbps. This provides continuous Internet access service with speed ranging from 256 Kbps to 8 Mbps.

**7. Wi-Fi :** Wi-Fi Services have been introduced for providing high speed Internet access at convenient public locations such as like Airports, Railway Stations, Universities and their campus etc.

**8. Sancharnet card :** BSNL has also launched "SANCHARNET CARD" recently. The Sancharnet Card is a prepaid Internet Access Card for users.

**Browsing the websites using Web Browser :** To browse the websites first we open the browser of our computer. It opens automatically with our chosen homepage. The homepage is the first page of URL that automatically loads, when a web browser starts or when the browser's "home" button is pressed. Homepage is a main page of website, which acts as a doorway to the rest of the website pages. We can select a homepage according to our choice or keep it blank. Now, we type the URL of specific websites in address bar, which we want to visit (open). At resultant we get all the resources and services of that websites. We use BACK button to go one page back of current page and FORWARD button to go one page forward of current page. These buttons are only applicable between pages which we have opened. At anytime by using HOME button we can go to homepage or by typing the other URL go to other websites. Websites are collection of web pages, images, sound and animation and names of all websites start with www such as [www.google.com](http://www.google.com), [www.msn.com](http://www.msn.com) etc. If we use any site repeatedly then instead of type it again and again we should bookmark it.

**Uses of Internet :** Internet has become a part of our everyday life. From being used in defence purposes by the United States military for communication initially, to being used worldwide for hundreds of thousands of different purposes of our every day life now.

There are millions of applications of Internet and we are in fact as dependent on Internet as we are on other utility things like electricity, water etc. Before a few years, people used to get up in the morning and read the newspaper or watch television. Now most people log onto the Internet first thing in the morning. So Internet has become so essential in our daily life.

### **These uses of the Internet**

**1. Search engine :** It is a specialized program that assists users in locating information on the web. It can be used to search anything and everything. Most popular search engines are Google, MSN, Lycos, Yahoo, Khoj and Cyber 411 etc. Cyber 411 is a mega search engine that queries over a dozen major search engines in parallel, then returns queries ranked by relevancy. It gives the search results of 16 parallel queries.

**2. Online shopping :** Shopping has become easier with the use of Internet. We can buy or sell online. It is an important component of electronic commerce.

**3. Netbanking :** Netbanking or Internet banking means banking through internet. It has replaced the conventional way of banking. Now, there is no need to stand in long queues for deposit/withdrawal to check the account status. All these are possible with just a few clicks of a mouse. Marketing of internet banking means marketing the uses of banking transactions through internet.

**4. Communication :** This is a major role of the Internet. It helps people to communicate either with the use of social networking websites or through e mails or through chatting. A chat is a real time typed conversation that takes place on a computer. Internet telephony allows voice conversation to travel over internet.

**5. Job search :** Nowadays, many people search for their jobs online as it is quicker and there is a larger variety of job vacancies present.

**6. Hobbies :** Those who are having certain hobbies can try to improve on it by reading up on many aspects of their hobby.

**7. Research :** Research papers are present online which helps in the researcher doing a literature review.

**8. Studying :** Now right from kindergarten children are exposed to Internet and computers. They find many useful things to learn on the Internet though with supervision of the elders. Upto doctorate level education, people rely on Internet for their education. Online educational books have even reduced the need for a library.

**9. Usenet :** Usenet has diminished in importance with respect to Internet forums, blogs and mailing lists. The difference, though, is that Usenet requires no personal registration with the group concerned, that information need not be stored on a remote server, that archives are always available, and that reading the messages requires not a mail or web client, but a news client. The format and transmission of Usenet articles is similar to that of e-mail messages. The difference between the two is that Usenet articles can be read by any user whose news server carries the group to which the message was posted, as opposed to email messages which have one or more specific recipients.

**10. File download and upload :** To download or upload any file to the Internet FTP (File Transfer Protocol) is a common way for users, our Web browser can also make FTP requests to download programs we select from a Web page. Using FTP, we can also update files at a server.

**11. Videoconferencing :** Videoconferencing is a service that allows multiple participants to converse with each other regardless of their location through personal computers and Internet. It uses telecommunications of audio and video to bring people at different sites together for a meeting. It's about connecting people. Besides the audio and visual transmission of meeting activities, videoconferencing can be used to share documents, computer-displayed information, etc.

The components required for a videoconferencing are :

1. Video camera or Webcam
2. Computer system
3. Microphones
4. Speaker
5. Internet

**12. E-Commerce (Electronic Commerce) :** In other words, E-Commerce is a technology enabled communication of a business organisation with its customers and suppliers. It is conducting business through the electronic media, particularly through paperless IT (information technology) over the internet. E-commerce is the buying and selling of goods and services on the Internet. It allows us to carry out transactions without the barriers of time or distance. It minimizes the cost of transaction.

**13. E-learning :** A popular way to learn about computer without ever going to a classroom.

**14. E-mail :** It is the most widely used application on the Internet. It is simple, very fast and a reliable tool for sending and receiving messages from an individual or a group of people across the world via the internet as similar to writing a letter. In 1971, Ray Tomlinson created the first ARPANET email application, so he is considered to be the father of E-mail. Hotmail was the first free email service launched in June 1996 by Sabeer Bhatia. Today, hotmail is still one of the biggest free email services.

An e-mail message consists of two parts, the e-mail address and the message. We can get the e-mail address by creating an e-mail account. Each account has an e-mail address and a password. Each email address has two parts user name followed by @ sign and domain name. Password is a secret code or string of characters that restricts entry of unknown user and retains confidentiality. It is used for authentication, to prove identity or gain access to a resource. The password should be kept secret from those not allowed access. 'E-mail address' identifies a location to which e-mail messages can be delivered and password maintains security of users e-mail account. Sent messages are stored in electronic mailboxes until the recipient fetches them. To see if you have any mail, you may have to check your electronic mailbox. 'Subject' of e-mail gives information about contents of messages. Email has the option to attach any separate file like image, graph, sound and document etc from another program, that is called attachments. The draft folder retains copies of messages that have started but are not ready to send. E-mail saves time of sending and receiving messages and stamp's cost. At present popular free-mail service provider sites are [www.hotmail.com](http://www.hotmail.com), [www.gmail.com](http://www.gmail.com), [www.yahoo.com](http://www.yahoo.com), [www.rediffmail.com](http://www.rediffmail.com) and [www.india.com](http://www.india.com) etc. Junk e-mail or unsolicited e-mail is known as Spam. It is unwanted messages or advertisements with e-mails which is not requested by users.

**15. On-line entertainment :** It allow us to visit on-line an electronic zoo or museum or favourite movies or songs, story books, puzzles, computer games, and more etc.

#### **Internet related terms**

**1. URL :** URL stands for Uniform Resource Locator. It is a standard way to locate a resource such as file or document on the Internet. The URL specifies the address of a file and every file on the Internet has a unique address. Every URL consists of three parts. The first part of the URL contains the name of the protocol to be used to access the file resource, the other is IP address or domain name that identifies a specific computer on the Internet. Such as a URL is <http://www.hotmail.com> in which http is protocol and

[www.hotmail.com](http://www.hotmail.com) is IP address or the domain name where the resource is located.

The actual URL is a set of four numbers separated by periods. An example of this would be 202.147.23.8 but as these are difficult for humans to use, addresses are represented in alphanumeric form that is more descriptive and easy to remember. The Internet Domain Name System translates the alphanumeric address to numeric.

**2. World Wide Web (WWW)** : It is commonly known as Web, is a way of accessing information over the medium of the Internet. In March 1989, Tim Berners-Lee played an active role to develop the World Wide Web. World Wide Web is interlinked hypertext documents that contain resources. It is a vast collection of information related pages called web pages. Web pages are written in HTML (Hyper Text Markup Language) computer Language. Each page may contain text, images, videos, sounds and other multimedia and navigate between them using hyperlinks. Mouse pointer appears like a hand when it points to a hyperlink. A hyperlink which is often called link is the "address" to a document or a resource on the web. When we click it then it makes available the resources of linked web pages. To reload a web page, we use reload button.

**3. Web server** : For a web site to be available to everyone all over world at all times, it needs to be stored or hosted on a computer. Such a computer is known as a web Server. A web server can mean two things, a computer on which a web site is hosted or stored and a program that runs on such a computer and can send web pages out to other computers over Internet. But the most important is to have a Permanent Internet address also known as an I.P. address. If the I.P. address changes, the web site would not be found and will appear off line, the browser will display an error 'cannot find web site'.

**4. Bookmark** : A bookmark is a saved link to a Web page that has been added to a list of saved links. When we are looking at a particular Web site and want to be able to quickly get back to it later, we can create a bookmark for it. If we are going to a site that we often use, instead of having to type in the address every time we should bookmark it.

**5. HTML (Hyper Text Markup Language)** : It is a computer's language used to create hypertext documents for the World Wide Web. Web pages are created using HTML.

**6. TCP / IP (Transmission Control Protocol / Internet Protocol)** : TCP / IP is the communication protocol for the Internet, it defines the rule which computers must follow to communicate with each other over the Internet.

**7. FTP (File Transfer Protocol)** : It is a standard network protocol used to exchange and manipulate files over the Internet. FTP represents the network functionality that enables users to upload web page files like simple text files, images, multi-media files, etc. from their personal computers to the server where their websites are located and vice versa - to download files from a particular server to their own machines.

**8. HTTP** : It is short for Hyper Text Transfer Protocol, used by the World Wide Web. HTTP defines how messages are transmitted, and what actions

Web servers and browsers should take in response to various commands. For example, when we enter a URL in our browser, this actually sends an HTTP command to the Web server directing it to fetch and transmit the requested Web page.

**9. ICMP (Internet Control Message Protocol) :** It is one of the main protocols of the internet protocol suite. It is used by network devices, like routers to send error messages.

**10. IP address :** The format of an IP address is a 32-bit numeric address written as four numbers separated by periods. Each number can be zero to 255. For example, 1.177.10.248 could be an IP address. It is an identifier for a computer on a TCP/IP network.

**11. Domain name :** Domain names are specific names used in URLs to identify particular Web pages. A name that identifies one or more IP addresses. For example, in the URL <http://www.hotmail.com>, the domain name is hotmail.com. Every domain name has a suffix that indicates which top level domain it belongs to. There is only a limited number of such domains. For example:

.acro : aviation  
.gov : Government agencies  
.in : India  
.org : organisations (nonprofit)  
.com : Commercial business  
.asia : Asia

.jobs : Jobs  
.name : Personal  
.edu : Educational institutions  
.mil : Military  
.net : Network organisations  
.biz : Business organisation

**12. Upload :** The term upload can refer to the sending of data from a local system to a remote system such as the remote system should store a copy of the data being transferred. When we are sending the copy of file from our system to a remote system by using Internet, then we are uploading the files.

**13. Download :** The term download can refer to the receiving of information to a local system from a remote system or server on the internet. When we are receiving a copy of the file from a remote system to our system by using Internet, then we are downloading the files. Software piracy is the act of copying or down loading a program from a network and making multiple copies of it.

**14. Gateway :** A gateway is a network point that acts as an entrance to another network. A gateway can accept a packet formatted for one protocol and convert it to a packet formatted for another protocol before forwarding it.

**15. Flash :** Flash is a vector animation software, originally designed to create animations for display on web pages. It is a small application that allows animations, interactive forms, games etc. It is to be embedded in web pages.

**16. Web Surfing :** Internet is a necessity for today's computer users. It is the world's largest encyclopedia. Whatever we need, we can find it and download it over the Internet, often for free. To search and explore the resources from websites which we need is called web surfing. Web surfing is usually seen as fun, dangerous, or a tremendous waste of time.

**17. Virus :** A computer virus is a computer program that can load and replicate itself without even the user knowing about the damage being done. It infects a computer system. It replicates by being copied and uses all

over memory, resulting into system being slow or crashes. Some viruses are initiating its copying to another program such as computer boot sector or document. If our computer keeps rebooting itself, then it is likely that it has a virus. It can be transmitted as attachments to an e-mail or in a downloaded file and it is the most common way to get a virus in computer. So, if we get an e-mail from unknown user we should erase it without opening. It is a program designed to destroy data on computer system, which can travel to infect other computers. As with all code, viruses use the host's resources memory and hard disk space amongst others, and are sometimes deliberately destructive such as erasing files, formatting hard disks or allowing others to access the machine without authorization across a network. If a virus corrupts the file allocation table, the operating system DOS cannot retrieve any data from the disk. File allocation table provides a map of clusters in which the file has been stored.

Viruses are categorized to several parts based on their features

- |                              |                   |
|------------------------------|-------------------|
| (a) Boot Sector Viruses      | (b) Macro Viruses |
| (c) Multipartite Viruses     | (d) Link Virus    |
| (e) Parasitic Virus          | (f) Worms         |
| (g) Trojans or Trojan Horses |                   |

To prevent, detect and remove these computer viruses a software is used which is called anti-virus. Such software may also prevent and remove *adware*, *spyware* and other forms of *malware*. It also provides the facility of auto-protection and real time protection which detects the virus in files before downloading from Internet. If virus activates then it informs the user by pop-up window and after that user removes it by system scan. To protect from virus the computer system needs periodically full scan.

The first actual computer virus was the *Creeper*, which first showed up on a very early edition of the Internet, the ARPANET. 'Happy Birthday Joshi', virus was first discovered in India in June 1990. Brain was the first virus to hit computers running Microsoft's then popular operating system MS-DOS. Elk Cloner is regarded as the first virus to hit personal computers worldwide, it spread through Apple II floppy disks.

Some computer viruses are

1. Creeper
2. Brain
3. Monkey
4. Michelangelo

**18. Hacker :** A person who used his or her expertise to get access to other people's computers to get information illegally or do damage for personal gain.

**19. Phishing :** Phishing is a way of attempting to acquire sensitive information such as username, password and credit card details. Phishing scams attempt to trick people into providing sensitive personal information. In order to carry out this trick the phishing scammers send a fraudulent email disguised as an official request for information from the targeted company. They also create a lookalike website that is designed to closely resemble the target company official site.

**Multimedia :** We use different medium to say any information to others. These mediums can be text, sound, pictures, animation, and video.

Multimedia is the presentation of information through more than one presentation medium or the combination of text, sound, pictures, animation, and video.

**Hardware and Software requirement for Multimedia :** To develop the multimedia system, the required various hardware/software components are :

The basic elements of multimedia on a computer are

- |                              |                        |
|------------------------------|------------------------|
| 1. Graphics Accelerator Card | 2. Sound Card          |
| 3. CD-ROM drive              | 4. Microphone          |
| 5. Camera                    | 6. Multimedia Software |

**Elements of Multimedia :** The elements of multimedia are the following

1. **Text :** Text is the most fundamental element of any multimedia project. Of all multimedia elements, text is the easiest to manipulate. It is used to add special visual effects to text to create a more appealing presentation by using special tools such as bold, blink and underline etc.

2. **Graphics :** Graphics can be added into a multimedia project in the form of photographs or designs. It can be imported from a variety of resources such as the Internet, a digital camera, a scanner etc. Original graphic designs also can be created with the help of graphic applications. It is used to inform about anything to people easily because image can say more than text.

3. **Sound :** Sound can be added to a multimedia presentation from a variety of sources. Original sounds can be also recorded using a microphone and programs such as HyperStudio, MovieWorks, or SmartSound.

4. **Video :** Moving images or video can be incorporated into a multimedia project as Quick-Time movies.

5. **Animation :** It is a group of graphics images that contain movement and look like a movie. It is used for making cartoon film, video game etc.

#### Uses of Multimedia

1. **Entertainment :** Multimedia is used in the entertainment industry, especially to develop special effects in movies and animations. It is also used in video games.

2. **Education and Training :** In Education and training multimedia is used to produce computer-based training courses and reference books like encyclopaedia and almanacs.

3. **Engineering :** Software engineers may use multimedia in Computer Simulations for anything from entertainment to training.

4. **Business :** In business, multimedia is used as a way of helping present information to shareholders, superiors and co-workers. Multimedia is also helpful for providing employee training, advertising and selling products all over the world through unlimited web-based technologies.

5. **Mathematical and Scientific Research :** In Mathematical and Scientific Research, multimedia is mainly used for modeling and simulation.

6. **Medicine :** In medicine, doctors can get trained by looking at a virtual surgery or they can simulate how the human body is affected by diseases.

## Objective Question

1. A word on a web page which opens other document when clicks on it is a .....  
(a) Anchor (b) Hyper link (c) Reference  
(d) URL (e) None of these

2. Internet banking means .....  
(a) Meeting of banks on internet (b) Net practice  
(c) Banking from internet (d) All of these  
(e) None of these

3. Which of following is a example of continuity ?  
(a) Internet (b) Floppy disk (c) Power cord  
(d) Data (e) None of these

4. When sending an e-mail, the ..... line describes the contents of the message.  
(a) Subject (b) To (c) Contents  
(d) CC (e) None of these

5. ..... is a device which uses for data transmission through telecommunication line.  
(a) Drives (b) Modem (c) Platform  
(d) All of these (e) None of these

6. Specialized programs that assist users in locating information on the Web are called .....  
(a) Information engines (b) Locator engines (c) Web browsers  
(d) Resource locators (e) Search engines

7. Unsolicited e-mail is called a .....  
(a) Newsgroup (b) Usenet (c) Backbane  
(d) Spam (e) None of these

8. A code of webpage has been written by using .....  
(a) Hyper text markup language (b) 5th generation language  
(c) Winzip (d) Perl (e) None of these

9. Small application program which runs on webpage and sores that forms completed correctly of provide animation is called .....  
(a) Flask (b) Spiders (c) Corkies  
(d) Applets (e) None of these

10. When pointer points ..... then pointer appears like a hand.  
(a) Grammar error (b) Hyperlink (c) Screen tip  
(d) Spelling error (e) None of these

11. What is an E-mail attachment ?  
(a) A receipt sent by the recipient  
(b) A separate document from another program sent along with an E-mail message  
(c) A malicious parasite that feeds off of your messages and destroys the contents  
(d) A list of CC : or BCC : recipients  
(e) A friend to whom E-mail is sent regularly

12. The first political party of India which created its own web-site on internet is .....  
(a) Bhartiya Janata Party (b) Lok Janshakti Party  
(c) Rastriya Janta Dal (d) Samajwadi Party  
(e) Janata Party

- 13.** Which state of India first available the telephone directory on internet?
- (a) Sikkim (b) Arunachal Pradesh (c) Andhra Pradesh  
(d) Bihar (e) Uttar Pradesh
- 14.** Which of the following must be contained in a URL?
- (a) A protocol identifier (b) the letter, WWW.  
(c) The unique registered domain name  
(d) WWW. and the unique registered domain name  
(e) A protocol identifier, WWW. and the unique registered domain name
- 15.** Who runs internet?
- (a) I & B (b) IETF (c) Inter NIC  
(d) VSNL (e) None of these
- 16.** ..... is a device that connects two or more networks.
- (a) Gateway (b) Pathway (c) Roadway  
(d) Bus (e) None of these
- 17.** ..... uses HTTP.
- (a) Workbook (b) Server (c) Worksheet  
(d) Web page (e) None of these
- 18.** WWW uses ..... protocol.
- (a) FTP (b) HTTP (c) WBC  
(d) MTP (e) None of these
- 19.** Website is a collection of .....
- (a) HTML documents (b) Graphic files (c) Lock key  
(d) All of these (e) None of these
- 20.** A website's main page is called its .....
- (a) Home page (b) Browser page (c) Search page  
(d) Book mark (e) None of these
- 21.** Which of the following **cannot** be part of an email address?
- (a) Period (.) (b) At sign (@) (c) Space ( )  
(d) Underscore (\_) (e) None of these
- 22.** For document exchange on network which of the following is not necessary?
- (a) Floppy (b) Telephone line (c) Connctor  
(d) Satellite (e) None of these
- 23.** It helps to connect a computer from internet.
- (a) Browser (b) Netfit (c) Windows-95  
(d) Cable (e) None of these
- 24.** Which field .org is related to?
- (a) Education (b) Non-commercial (c) Commercial  
(d) Organization (e) None of these
- 25.** .com is related to
- (a) Personal characteristic (b) Art  
(c) Commercial organization (d) Information  
(e) None of these
- 26.** Internet was started in India at—
- (a) 15 August, 1995 (b) 9 August, 1995 (c) 8 August, 1994  
(d) 7 August, 1996 (e) None of these
- 27.** What is used in computer for communication purpose?
- (a) Netsurfing (b) Software (c) Language  
(d) Modem (e) None of these

28. F.T.P. stands for—  
 (a) File transfer protocol      (b) File transfer  
 (c) File transfer premium      (d) File transfer perfect  
 (e) None of these
29. An address that starts from WWW is related to—  
 (a) Modem      (b) Internet      (c) Telephone  
 (d) Website      (e) None of these
30. .... is selling and buying of goods and services through internet.  
 (a) E-commerce      (b) Internet      (c) E-mail  
 (d) Website      (e) None of these
31. Address of a website is called an .....  
 (a) User ID      (b) URL      (c) Time stamp  
 (d) All of These      (e) None of these
32. Which of the following uses to send a data of one computer to the farthest other computer ?  
 (a) Telex      (b) Modem      (c) Fax  
 (d) Telegraph      (e) None of these
33. Internet service is provided in India through .....  
 (a) VSNL      (b) MTNL      (c) Both  
 (d) WLL      (e) None of these
34. Full name of Modem is—  
 (a) Modulator demodulator      (b) Modulator demodulation  
 (c) Modulator discussion      (d) All of these  
 (e) None of these
35. Full name of E-mail is .....  
 (a) English mail      (b) Electric mail      (c) Electronic mail  
 (d) Essential mail      (e) None of these
36. Full form of Internet is .....  
 (a) Intercontinental network      (b) International network  
 (c) Internal network      (d) Intercom network  
 (e) None of these
37. A device which sends data by telephone is .....  
 (a) Modem      (b) Monitor      (c) Mouse  
 (d) O.C.R.      (e) None of these
38. .... is called information highway.  
 (a) E-mail      (b) Page      (c) Cellular phone  
 (d) Internet      (e) None of these
39. Inventor of e-mail—  
 (a) Bill gates      (b) Timothi Bil      (c) Linkan Galitobery  
 (d) Ray Tomlinson      (e) None of these
40. Full form of WWW is .....  
 (a) World working window      (b) Window world wide  
 (c) World wide web      (d) World working web  
 (e) None of these
41. Inventor of WWW is .....  
 (a) Bill Gates      (b) Lee. N. Feyong      (c) N. Resscl  
 (d) Tim Berners Lee      (e) None of these
42. Yahoo, Google and MSN are .....  
 (a) Internet sites      (b) Computer brand  
 (c) Saturan ring      (d) Watch made in sartzor land  
 (e) None of these

- 43.** Which of the following is not term of information technology ?  
 (a) Cyber space      (b) Upload      (c) Light storage  
 (d) Modem      (e) None of these
- 44.** Spam is related to .....  
 (a) Computer      (b) Art      (c) Music  
 (d) Game      (e) None of these
- 45.** Which of the following is not defined in information technology?  
 (a) Login      (b) Modem      (c) Password  
 (d) Pinaca      (e) None of these
- 46.** The first computer virus seen in India is —  
 (a) C-Brain      (b) Calambus      (c) Mac bug  
 (d) Michel Angelo      (e) None of these
- 47.** When internet is used to send a message then this facility is called.....  
 (a) Cyber space      (b) Nicknet      (c) E-mail  
 (d) I-net      (e) None of these
- 48.** Which of the following is not a computer virus?  
 (a) Wanhaff      (b) Monkey      (c) Change mange  
 (d) Manoj      (e) None of these
- 49.** In ..... Michel Angelo virus was subject of thinking in world.  
 (a) 1999      (b) 1992      (c) 1994  
 (d) 1993      (e) None of these
- 50.** Passwords enables users to .....  
 (a) Get into the system quickly      (b) Make efficient use of time  
 (c) Retain confidentiality of files      (d) Simplify file structure  
 (e) None of these
- 51.** What is an e-mail ?  
 (a) An internet standard, which allow users to upload and download files  
 (b) An online area on which a user can converse in written form about any special subject  
 (c) Transmission of files and messages through computer network  
 (d) A real time typed conversation  
 (e) None of these
- 52.** A chat is—  
 (a) An internet standard, which all users use to upload and download files  
 (b) An online area on which a user can converse in written form about any subject  
 (c) Transmission of files and messages through computer network  
 (d) A real time typed conversation  
 (e) None of these
- 53.** Secret code that restricts entry in the same programs is—  
 (a) Password      (b) Passport      (c) Entry code  
 (d) Access code      (e) None of these
- 54.** Sending an e-mail is like a .....  
 (a) Creating an image of any event  
 (b) Telling a story      (c) Writing a letter  
 (d) Creating an image      (e) None of these
- 55.** The process of a computer receiving information from a server on the internet is known as—  
 (a) Pulling      (b) Pasting      (c) Downloading  
 (d) Transforming      (e) None of these

56. IT stands for—  
 (a) Information technology      (b) Integrated technology  
 (c) Intelligent technology      (d) Interesting technology  
 (e) None of these
57. Sending an e-mail is similar to—  
 (a) Petering an event    (b) Narrating a story    (c) Writing a letter  
 (d) Creating a drawing    (e) None of these
58. E-commerce allows companies to—  
 (a) Issue important business reports  
 (b) Conduct business over the internet  
 (c) Support decision making processes  
 (d) Keep track of paper based transaction  
 (e) None of these
59. Junk e-mail is also called—  
 (a) Spam      (b) Spoof      (c) Sniffer script  
 (d) Spool      (e) None of these
60. The internet allows you to—  
 (a) Send e-mail      (b) View web pages  
 (c) Connect to servers all around the world  
 (d) All of the above      (e) None of these
61. A program designed to destroy data on your computer which can travel to infect other computers is called a—  
 (a) Disease      (b) Tarpedo      (c) Hurricane  
 (d) Virus      (e) None of these
62. What is the most common way to get a virus in your computer's hard disk?  
 (a) By installing games from CD ROMs  
 (b) By opening e-mails  
 (c) By uploading pictures from mobile to the computers  
 (d) By sending e-mails    (e) None of these
63. Marketing of internet banking means—  
 (a) Meeting of banks on the net      (b) Net Practice  
 (c) Marketing the usage of banking transactions through internet  
 (d) Transactions with foreign countries  
 (e) None of these
64. .... are devices used to transmit data over telecommunications lines.  
 (a) Drives      (b) Drive bays      (c) Modems  
 (d) Platform      (e) None of these
65. Most websites have a main page, the ..... which acts as a doorway to the rest of the website pages.  
 (a) Search engine      (b) Home page      (c) Browser  
 (d) URL      (e) None of these
66. If you are going to a site you use often, instead of having to type in the address every time, you should .....  
 (a) Save it as a file      (b) Make a copy of it      (c) Bookmark it  
 (d) Delete it      (e) None of these
67. Output which is made up of pictures, sounds, and video is called .....  
 (a) COM      (b) Hard copy      (c) Graphics  
 (d) Multimedia      (e) None of these

68. WWW stands for .....
- (a) World Work Web (b) Wide Work Web (c) Wide World Web  
(d) World Wide Web (e) None of these
69. The vast network of computers that connects millions of people all over the world is called .....
- (a) LAN (b) Web (c) Hypertext  
(d) Internet (e) None of these
70. Coded entries which are used to gain access to a computer system are called .....
- (a) Entry codes (b) Passwords (c) Security commands  
(d) Codewords (e) None of these
71. The "home page" of a website is .....
- (a) The largest page (b) The last page (c) The first page  
(d) The most colorful page (e) None of these
72. The internet is a system of .....
- (a) Software bundles (b) Web page (c) Website  
(d) Interconnected networks (e) None of these
73. The ..... also called the web, contains billions of documents.
- (a) World Wide Web (b) HTTP (c) Web portal  
(d) Domain (e) None of these
74. What is an e-mail attachment ?
- (a) A receipt sent by the recipient  
(b) A separate document from another program sent along with an e-mail message  
(c) A malicious parasite that feeds off of your messages and destroys the contents.  
(d) A list of CC or BCC recipients  
(e) None of these
75. Which of the following are all considered advantages of e-mail ?
- (a) Convenience, speed of delivery, generality and reliability.  
(b) Printable, global and exposing  
(c) Global, convenience and Microsoft word  
(d) Slow delivery, reliable, global and in expansive  
(e) None of these
76. A ..... is a software program used to view Web pages.
- (a) site (b) host (c) link  
(d) browser (e) None of these
77. ..... allows voice conversations to travel over the Internet.
- (a) Internet telephony (b) Instant messaging (c) E-mail  
(d) E-commerce (e) None of these
78. Which of the following is not true concerning user IDs and passwords ?
- (a) When you enter your user ID and password, the computer knows it is you  
(b) If your computer asks for a user ID and password, you can create your own  
(c) Sometimes you are assigned a user ID and password for security reasons

- (d) You should share your user ID and password with at least one other person  
(e) None of these
79. What is a modem connected to ?  
(a) processor      (b) mother board      (c) printer  
(d) phone line      (e) None of these
80. An e-mail address typically consists of a user ID followed by the ... sign and the name of the e-mail server that manages the user's electronic post office box.  
(a) @      (b) #      (c) &  
(d) ★      (e) None of these
81. A web ..... consists of one or more Web pages located on a Web server.  
(a) hub      (b) site      (c) story  
(d) template      (e) None of these
82. A computer ... is a set of program instructions that can attach itself to a file, reproduce itself, and spread to other files.  
(a) worm      (b) virus      (c) trojan horse  
(d) phishing scam      (e) None of theses
83. ..... makes it possible for shoppers to make purchases using their computers.  
(a) E-World      (b) E-Commerce      (c) E-spend  
(d) E-business      (e) None of these
84. Programs such as Internet Explorer that serve as navigable windows into the Web are called.....  
(a) Hypertext      (b) Networks      (c) Internet  
(d) Web browsers      (e) None of these
85. ..... this is the act of copying or downloading a program from a network and making multiple copies of it.  
(a) Network piracy      (b) Plagiarism      (c) Software piracy  
(d) Site-license piracy      (e) None of these
86. Which of the following is the communications protocol that sets the standard used by every computer that accesses Web-based information?  
(a) XML      (b) DML      (c) HTTP  
(d) HTML      (e) None of the
87. A ... is a computer attached to the Internet that runs a special Web server software and can send Web pages out to other computers over the Internet.  
(a) web client      (b) web system      (c) web page  
(d) web server      (e) None of these
88. ... are a type of inexpensive digital camera that remains tethered to a computer and used for videoconferencing, video chatting and live Web broadcast.  
(a) Webcams      (b) Webpics      (c) Browsecams  
(d) Browserpics      (e) None of these
89. The standard protocol of the internet is .....  
(a) TCP/IP      (b) Java      (c) HTML  
(d) Flash      (e) None of these
90. The acronym HTML stands for .....  
(a) High Transfer Machine Language

## Computer

- (b) High Transmission Markup Language  
(c) Hypertext Markup Language  
(d) Hypermedia Markup Language  
(e) None of these

91. The software that allows users to surf the internet is called a / an..... .  
(a) Search engine  
(b) Internet Service Provider (ISP)  
(c) Multimedia application  
(d) Browser  
(e) None of these

92. A modem ..... .  
(a) translates analog signals from a computer into digital signals that can travel along conventional telephone lines  
(b) translates digital signals from a computer into analog signals that can travel along conventional telephone lines  
(c) demodulates digital signals from a computer  
(d) modulates signals an analog telephone line  
(e) None of these

93. A Web site address is a unique name that identifies a specific .... on the Web.  
(a) Web browser  
(b) PDA  
(c) Web site  
(d) link  
(e) None of these

94. The Internet allows you to ..... .  
(a) send electronic mail  
(b) view Web pages  
(c) connect to servers all around the world  
(d) All of these  
(e) None of these

95. Most mail programs automatically complete the following two parts in an e-mail ..... .  
(a) From : and Body :  
(b) From : and Date :  
(c) From : and To :  
(d) From : and Subject :  
(e) None of these

96. The Internet allows you to ..... .  
(a) Send electronic mail  
(b) view Web pages  
(c) connect to servers all around the world  
(d) All of these  
(e) None of these

97. What is the most common way to get a virus in your computer's hard disk ?  
(a) By installing games from their CDROMS  
(b) By uploading pictures from mobile phones to the computer  
(c) By opening emails  
(d) By sending emails  
(e) None of these

98. A chat is ..... .  
(a) an Internet standard that allows users to upload and download files  
(b) a typed conversation that takes place on a computer  
(c) an online area in which users conduct written discussions about a particular subject  
(d) the transmission of messages and files via a computer network  
(e) None of these

99. The Internet is ..... .  
(a) a large network of networks  
(b) an internal communication system for a business

- (c) a communication system for the Indian government  
 (d) All of these      (e) None of these
- 100.** Junk e-mail is also called .....  
 (a) spam      (b) spoof      (c) sniffer script  
 (d) spool      (e) None of these
- 101.** To view information on the web you must have a .....  
 (a) cable medem      (b) web browser  
 (c) Domain Name Server      (d) hypertext viewer  
 (e) None of these
- 102.** A word in a web page that, when clicked, opens another document....  
 (a) anchor      (b) URL      (c) hyperlink  
 (d) reference      (e) None of these
- 103.** ..... is the most popular internet activity.  
 (a) Art      (b) Shopping      (c) Searching  
 (d) Entertainment      (e) Communication
- 104.** What is e-commerce ?  
 (a) Buying and selling international goods  
 (b) Buying and selling products and services over the internet  
 (c) Buying and selling products and services not found in stores  
 (d) Buying and selling products having to do with computer  
 (e) Buying and selling of electronic goods
- 105.** What are the four things needed to connect to the Internet ?  
 (a) telephone line, modem, computer, and an ISP  
 (b) modem, computer, PDA, and ISP  
 (c) telephone line, PDA, modem, and computer  
 (d) computer, ISP, modem, and communication software  
 (e) monitor, keyboard, mouse, modem
- 106.** Which of the following functions are not performed by servers ?  
 (a) e-mail processing      (b) database sharing      (c) processing web sites  
 (d) storage      (e) word processing
- 107.** The process of transferring files from a computer on the Internet to your computer is called .....  
 (a) download      (b) uploading      (c) FTP  
 (d) JPEG      (e) downsizing
- 108.** To reload a Web page, press the ..... button.  
 (a) Redo      (b) Reload      (c) Restore  
 (d) Ctrl      (e) Refresh
- 109.** you can use the ... bar to type a URL and display a Web page, or type a keyword to display a list of related Web pages.  
 (a) menu      (b) Title      (c) Search  
 (d) Web      (e) Address
- 110.** The collection of links throughout the Internet creates an interconnected network called the .....  
 (a) WWW      (b) Web      (c) World Wide Web  
 (d) All of the above      (e) Wide Area Web
- 111.** A(n) ..... is composed of several computers connected together to share resources and data.  
 (a) Internet      (b) network      (c) backbone  
 (d) hyperlink      (e) protocol
- 112.** A popular way to learn about computers without ever going to a classroom is called .....  
 (a) i-learning      (b) isolated learning      (c) e-learning  
 (d) close learning      (e) Distance Learning

113. A person who used his or her expertise to gain access to other people's computers to get information illegally or do damage is a ..... .  
(a) spammer (b) hacker (c) instant messenger  
(d) programmer (e) analyst

114. The ..... folder retains copies of messages that you have started but are not yet ready to send.  
(a) Inbox (b) Outbox (c) Drafts  
(d) Sent Items (e) Address Book

115. .... are attempts by individuals to obtain confidential information from you by falsifying their identity.  
(a) Phishing trips (b) Computer viruses (c) Spyware scams  
(d) Viruses (e) Phishing scams

116. Which of the following is not true ?  
(a) Chatting is like e-mail  
(b) Chatting can only be done with a single person  
(c) Chatting can involve multiple persons  
(d) Chatting is an electronic dialogue  
(e) None of these

117. What are the two parts of an E-mail address ?  
(a) User name and street address  
(b) Legal name and phone number  
(c) Initials and password  
(d) User name and domain name  
(e) None of these

118. Sending an E-mail is similar to ..... .  
(a) writing a letter (b) drawing a picture  
(c) talking on the phone  
(d) sending a package (e) None of these

119. If you are going to a site you use often, instead of having to type in the address every time, you should ..... .  
(a) make a copy of it (b) save it as a file (c) memorise it  
(d) bookmark it (e) note it in your diary

120. What does a Browser do ?  
(a) Looks through magazines and books in the library  
(b) Reads material really fast (c) It wastes your time  
(d) It provides help menus  
(e) It is software used to view web pages

121. An email account includes a storage area, often called a(n) ..... .  
(a) attachment (b) hyperlink (c) mailbox  
(d) IP address (e) None of these

122. What is a modem connected to ?  
(a) processor (b) mother board (c) printer  
(d) phone line (e) None of these

123. Mr. XYZ wants to send an electronic message to a friend. He should use this type of application ..... .  
(a) word processing (b) e-mail (c) spreadsheet  
(d) paper and pencil (e) None of these

124. If your computer keeps rebooting itself, then it is likely that ..... .  
(a) It has a virus (b) It does not have enough memory  
(c) There is no printer (d) There has been a power surge  
(e) It needs a CD-ROM

- 125.** What utility do you use to transfer files and exchange messages ?  
(a) Web browsers (b) WWW (c) E-mail  
(d) Hypertext (e) Search engines
- 126.** Which of the following terms is just the collection of networks that can be joined together ?  
(a) Virtual private network (b) LAN  
(c) Intranet (d) Extranet (e) Internet
- 127.** What is the name given to those applications that combine text, sound, graphics, motion video and/or animation ?  
(a) Motionware (b) Anographics (c) Videoscapes  
(d) Multimedia (e) Maxomedia
- 128.** ..... a document means the file is transferred from another computer to your computer.  
(a) Uploading (b) Really simple syndication (RSS)  
(c) Accessing (d) Downloading (e) Upgrading
- 129.** What is a URL ?  
(a) A computer software program (b) A type of programming object  
(c) The address of a document or 'page' on the World Wide Web  
(d) An acronym for Unlimited Resources for Learning  
(e) A piece of hardware
- 130.** A computer hacker is—  
(a) A person who maintains computer security  
(b) A person who violates computer security with malicious intention for personal gain  
(c) A person responsible for safe computer operation  
(d) A person who repairs computer
- 131.** Video conferencing is :  
(a) Conduct of video calls using telecom technology  
(b) Conduct of telephone calls  
(c) Conduct of video conference using a set of telescopic technology  
(d) None of the above
- 132.** Which of the following is free e-mail service provider ?  
(a) Hotmail (b) Rediffmail (c) Yahoo  
(d) All of the above
- 133.** HTML stands for—  
(a) Hybrid Text Markup Language (b) Hypertext Markup Language  
(c) Higher Text Markup Language  
(d) None of the above
- 134.** A computer virus is—  
(a) A computer program that replicates itself  
(b) A virus that affects health of human being  
(c) Both of the above (d) None of the above
- 135.** The software that is used to create text-based documents are referred to as .....  
(a) DBMS (b) Suites (c) Spreadsheets  
(d) Presentation software (e) Word processors
- 136.** ..... is a Windows utility program that locates and eliminates unnecessary fragments and rearranges files and unused disk space to optimize operations.  
(a) Backup (b) Disk Cleanup (c) Disk Defragmenter  
(d) Restore (e) Disk Restorer

**Computer**

**137.** What does the ".com" in the URL : [www.abcd.com](http://www.abcd.com) indicate ?

- (a) Commercial      (b) Corporate      (c) Co-operative  
(d) Conceal

**138.** DOS can not retrieve any data from a disk if a computer virus corrupts the — of the computer.

- (a) File allocation table (b) BAT files      (c) Root Diectroy Area  
(d) Directory Area

**139.** Which one of the following is an example of a Web Browser ?

- (a) Opera      (b) Star Works  
(c) Google Apps      (d) Odilla

**140.** ICMP is used for

- (a) Addressing      (b) Forwarding      (c) Multicasting  
(d) Error reporting

**141.** Which of the following is a valid domain name extension ?

- (a) .com      (b) .gov      (c) .net  
(d) All of the above

**142.** URL stands for—

- (a) Universal Resource Locator (b) Universal Resource Locator  
(c) Uniform Resource Locator (d) United Resource Locator

**143.** e-Mail stands for :

- (a) Electrical Mail      (b) Electronic Mail      (c) Elastic Mail  
(d) None of the above

**144.** India's 1<sup>st</sup> Hi-Speed Rural Broadband Network has been commissioned district of

- (a) Kerala      (b) Karnataka      (c) Telangana  
(d) Andhra Pradesh

**Answers**

- |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|
| 1. (b)   | 2. (c)   | 3. (a)   | 4. (a)   | 5. (b)   | 6. (e)   | 7. (d)   |
| 8. (a)   | 9. (a)   | 10. (b)  | 11. (b)  | 12. (a)  | 13. (a)  | 14. (e)  |
| 15. (e)  | 16. (a)  | 17. (d)  | 18. (b)  | 19. (a)  | 20. (a)  | 21. (c)  |
| 22. (a)  | 23. (a)  | 24. (d)  | 25. (c)  | 26. (a)  | 27. (d)  | 28. (a)  |
| 29. (d)  | 30. (a)  | 31. (b)  | 32. (b)  | 33. (c)  | 34. (a)  | 35. (c)  |
| 36. (b)  | 37. (a)  | 38. (d)  | 39. (d)  | 40. (c)  | 41. (d)  | 42. (a)  |
| 43. (c)  | 44. (a)  | 45. (d)  | 46. (e)  | 47. (c)  | 48. (d)  | 49. (d)  |
| 50. (c)  | 51. (c)  | 52. (d)  | 53. (a)  | 54. (c)  | 55. (c)  | 56. (a)  |
| 57. (c)  | 58. (b)  | 59. (a)  | 60. (d)  | 61. (d)  | 62. (b)  | 63. (c)  |
| 64. (c)  | 65. (b)  | 66. (c)  | 67. (d)  | 68. (d)  | 69. (d)  | 70. (b)  |
| 71. (c)  | 72. (d)  | 73. (a)  | 74. (b)  | 75. (a)  | 76. (d)  | 77. (a)  |
| 78. (d)  | 79. (d)  | 80. (a)  | 81. (b)  | 82. (b)  | 83. (b)  | 84. (d)  |
| 85. (c)  | 86. (c)  | 87. (d)  | 88. (a)  | 89. (a)  | 90. (c)  | 91. (d)  |
| 92. (b)  | 93. (c)  | 94. (d)  | 95. (b)  | 96. (d)  | 97. (c)  | 98. (b)  |
| 99. (a)  | 100. (a) | 101. (b) | 102. (c) | 103. (e) | 104. (b) | 105. (d) |
| 106. (e) | 107. (a) | 108. (b) | 109. (e) | 110. (d) | 111. (b) | 112. (c) |
| 113. (b) | 114. (c) | 115. (e) | 116. (b) | 117. (d) | 118. (a) | 119. (d) |
| 120. (e) | 121. (c) | 122. (d) | 123. (b) | 124. (a) | 125. (c) | 126. (e) |
| 127. (d) | 128. (d) | 129. (c) | 130. (b) | 131. (a) | 132. (d) | 133. (b) |
| 134. (a) | 135. (e) | 136. (c) | 137. (a) | 138. (a) | 139. (a) | 140. (d) |
| 141. (d) | 142. (c) | 143. (b) | 144. (a) |          |          |          |

★ ★ ★



## Microsoft Windows

### Introduction

Microsoft Windows is an operating system and GUI (Graphical User Interface) produced by Microsoft, the software company. Bill Gates is the chairman of Microsoft, which he founded with Paul Allen. Nowadays approximately 90% of all personal computers are running on windows. It was introduced as a GUI that simplified DOS commands and tasks by converting programs and commands to icons.

In 1983 Microsoft announced the development of windows, a GUI for its own operating system MS-DOS, which has developed for IBM PC and compatible computers since 1981.

The first independent version of Microsoft Windows, version 1.0, released on 20 November 1985, achieved little popularity. It was originally going to be called "Interface Manager" but Rowland Hudson, the head of marketing at Microsoft, convinced the company that the name would be more appealing to consumers. Windows 1.0 was not a complete operating system, but it was an improved extended MS-DOS.

Microsoft Windows version 2 launched on 9 December 1987 became slightly more popular than its predecessor Microsoft Windows version 1 because it had new graphical application, Excel and Word.

Microsoft Windows got major success when Adlus PageMaker appeared in a windows version. At the start it could run only on Macintosh. It was beginning of the success of Windows. After that there were launched many versions of Microsoft Windows such as 2.0X, 2.03, 3.0 etc. Microsoft Windows 3.0 released in 1990, that scored significant success. In this version Windows introduced multitasking and virtual memory better than older DOS.

After that Microsoft Windows became the most popular operating system. Some popular versions of Microsoft Windows are

- Microsoft Windows 95 – In 1995
- Microsoft Windows 98 – In 1998
- Microsoft Windows ME – In 2000
- Microsoft Windows XP – In 2004
- Microsoft Windows Vista – In 2007

### MS-Windows related terms

1. **GUI (Graphical User Interface)** : GUI uses graphics or pictures to help the user navigate and access programs. A graphical user interface allows users

## Computer

to interact with electronic device such as computers, MP3 players, portable media player and gaming device etc. It offers graphical icons, images and visual indicators instead of text commands. There is no need to remember the commands. It provides easy and effective interface between users and electronic devices by direct manipulation of the graphical elements. It is user friendly because it provides easily understood instruction. The xerox Star was the first commercial computer developed by Xerox Corporation, which uses a graphical user interface with the desktop with icons and a mouse.

2. Icon : Icons are small images on desktop that represent various computer's applications or programs, files, folders, printers and other things. To activate the program or file or folder that an icon represents we have to simply double click on it with the left mouse button. This will activate the icon and either start a program or open a file or folder. By right-clicking we have access to a menu offering options, actions and properties. The icons can be renamed by right clicking on them and selecting rename. They can be deleted by right clicking and selecting delete. The user can put his own icons on the desktop that will quickly access programs or files - like a shortcut. Icons can be moved around on the desktop by clicking and dragging them.

3. Interface : It is a technique to communicate or meet two independent systems with each other. An interface allows a human being to interact with a computer, a telephone system, or other electronic information system. It can be of several types. The user interface allows the user to communicate with the operating system with the help of Keyboard and mouse etc. Languages and codes that the applications use to communicate with each other and with the hardware are called software interface. The hardware interface are wires, plugs and sockets that hardware devices use to communicate with each other. Network interface allows users to communicate between two terminals or terminal and network.

Windows Desktop : The desktop is the main screen area that we see after we turn on our computer and log on to Windows. When computer is booted up and ready to use, the screen we see is called the desktop. In other words, it is a screen that comes on when we turn on our computer that shows all the icons. When we open any programs or folders, they appear on the desktop. It is the background for all programs and contains the commands needed for accessing those programs. Desktops vary from one operating system to another, and even vary from version to version of a particular OS. It is the base for all computer operations. This background graphic of desktop is called Wallpaper. It can be changed to a different pattern or photo or picture by accessing "Display" in the Control Panel. A small arrow or blinking symbol on desktop is called cursor. When programs run on top of the desktop, the desktop itself is often partially or completely hidden. To see the whole desktop without closing any open programs or windows click the 'Show Desktop button' on the taskbar. The desktop is revealed. Click the icon again to restore all of your windows to the way they were.



Some important graphic features that we will find on a desktop is an icon. Icons are small pictures that are linked to programs on the window desktop when we press F5, it refreshes the screen.

Some of the most important icons on the desktop are

**1. My Computer** : It is an important icon on the desktop which allows to access drives, printers, the Control Panel and other system applications. The Control Panel gives the user access to the computer system and many support applications, such as 'Add New Hardware', 'Add / Remove Programs' and 'Accessibility Options'. From the Control Panel, we can access hardware settings for the keyboard, mouse speed, printers and modem; as well as settings for the monitor display and sound. It tells about used and free space available in computers.

**2. Recycle bin** : It is another important icon on the desktop. When we delete a file or folder, it goes into the Recycle Bin where it stays until the bin is emptied. Double-clicking on the Recycle bin icon will open a window that will show what is stored in the Recycle Bin. If we delete something by mistake we can find it in the Recycle Bin and restore it to its proper place. When the Recycle Bin is emptied, everything in it is permanently deleted.

**3. My Network Places** : It shows all network connections, which makes possible to connect the computer system from internet.

**4. My Document** : It is a location for storing all documents, such as text files, spreadsheets, and presentations. It is available on the Start menu, and we can also create a shortcut to it on the desktop for faster access.

### Organize the desktop icons

1. Click on the desktop with the right button of the mouse.
2. Select on the menu "Arrange Icons By".
3. As the menu is displayed you can choose to organize them by name, type, size or modified (date).

### Create a shortcut

1. Click on the desktop with the right button of the mouse.
2. Select the option Shortcut on the New menu. A dialog box will appear so that we can indicate the program for which we want the shortcut created.
3. Click on Browse button, to find the program.
4. Select the desired unit and look for the file or folder you want.
5. After selecting the file or folder click on Ok.
6. Click Next.
7. Type a name for the Shortcut.
8. Click Finish.

**Taskbar** : The taskbar is the long horizontal bar at the bottom of desktop and it is visible almost all the time. It has four main sections.

- The Start button, which opens the Start menu.
- The Quick Launch Toolbar, which lets start programs with one click.
- The middle section, which shows programs and documents we have opened and allows us to quickly switch between them.
- The notification area, on the far right side of the taskbar, which includes a clock and icons that communicate the status of certain programs and computer settings.
- To do any changes in taskbar we select the setting option in Start Menu then click on 'Taskbar and Start Menu' in sub-menu of setting that opens the 'Taskbar and Start menu Properties'.
- 'Taskbar and Start menu Properties' window has several options, which we select upon own choice.

**1. Lock the taskbar** : We can keep the taskbar in one place by locking it, which can prevent accidental moving or resizing. If we unlock it, we can move it to the bottom, side, or top of the desktop. Right-click an empty space on the taskbar, and if 'Lock the Taskbar' has a check mark next to it, the taskbar is locked. If it does not have a check mark, click on 'Lock the Taskbar' to lock the taskbar.

**2. Auto-hide the taskbar** : The taskbar is usually located at the bottom of your screen. We can hide the taskbar to create more space. To hide the taskbar click to open 'Taskbar and Start menu Properties'. Clear the 'Lock the taskbar' check box. Select the 'Auto-hide the taskbar' check box .If we don't see the taskbar anywhere on the screen, it might be hidden. If the taskbar is hidden, point to where we last saw it to show it again. If we can't remember where we last saw it, try pointing to the bottom of the screen first, and then to the side or top of the screen, if necessary.

**3. Keep the taskbar on top of the window** : If selected, make sure the taskbar is visible at all times, even when large maximized program windows are covering the rest of the screen.

**4. Group similar taskbar buttons** : If selected, allow multiple taskbar buttons to collapse into a single button so the buttons don't become too small to see on the taskbar.

5. **Show Quick Launch** : If selected, display the optional Quick Launch toolbar to the right of the Start button.

6. **Show the clock** : If selected, display clock on right side of the taskbar.

7. **Hide inactive Icons** : If selected, hide the buttons which is not currently used.

### Start Menu

At the edge of the screen usually the bottom, we see a long, thin bar with a box labeled "Start" on one end and a clock on the other end. If we click on the "Start" button, a box called a start menu will appear. It is the main gateway to computer's programs, folders, and settings. It's called a menu because it provides a list of choices. Some choices have small arrows next to them which access other menus. The Start Menu can be personalized by adding and removing programs, files and folders.

#### Start-menu has the following options

**Programs** : It is a list of installed programs, we can access the installed programs from here. If we install a new program, it is typically added to the program menu.

**Favorites** : It is a list of book-marked web pages, we can access book-marked web pages from here.

**Documents** : It is a list of most recently opened documents, we can access the most recently opened documents from here.

**Settings** : It is a list of system applications, we can access system applications such as Control Panel, printers, taskbar and Start Menu options from here.

**Find** : Searches for specific files or folders.

**Help** : Offers helpful topics related to computer and program.

**Run** : User can input commands to run specific programs or open any file, folder and document.

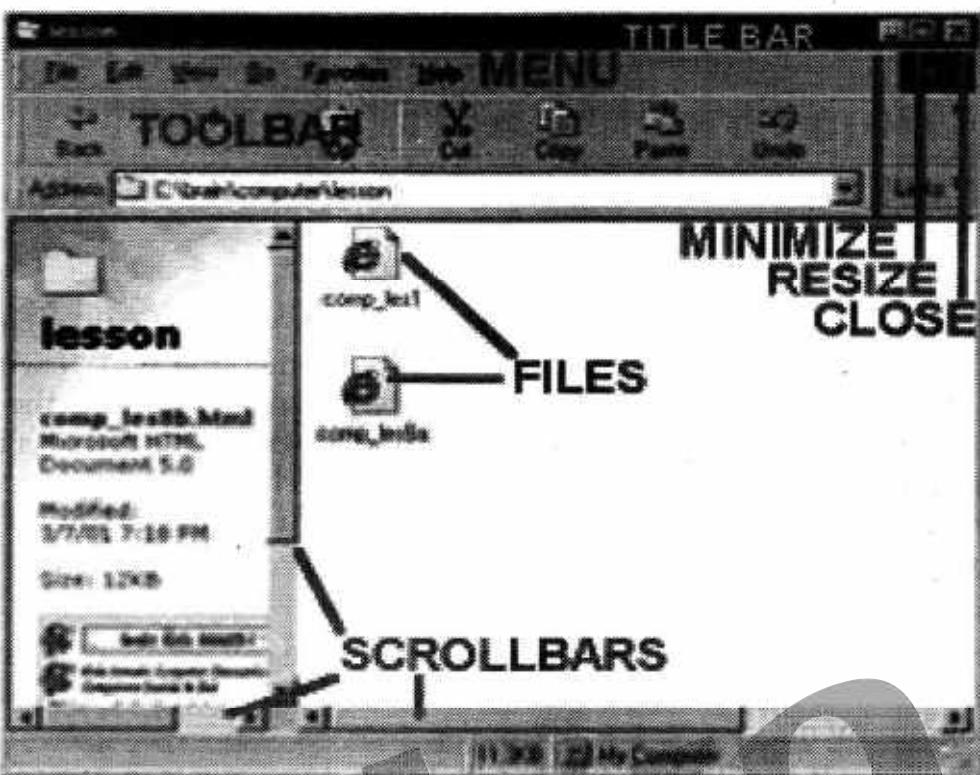
**LogOff-Allows a password** : Protected user to log off and another to log on.

**Turn off or Shut Down** : Shuts down or restarts the computer.

### Title Bar

Most of the programs, data or information and applications run within a rectangular area that is a window. The horizontal bar at the top of a window that contains the name of the window are called title bar. Most title bars also contain three control buttons in the far right hand side. These buttons are Minimize, Maximize/Restore and Close.

The left first control button in Minimize button that is visually represented by a minus sign . Minimizing the window clears it from the screen and application will be reduced to an icon on the task bar. But keeps the program running. A raised button on taskbar indicates a minimized or inactive window, and a depressed button indicates an open or active window. Minimizing a window is helpful if the user is temporarily not using the program, but plans to return to it soon. To redisplay the minimized window, click on the button on the taskbar.



The middle control button in these is Maximize button that is visually represented by  or  two small boxes on it. When we click on it, it controls the size of the window display. Restore reduces the window to a smaller size on the desktop. Maximize resize the window to full screen or expand it to fit the screen.

The far right control button in these is Close button and is visually represented by a . It closes the window, which also closes the program. In MS-Word, if we have not saved our most recent edits, the system will prompt to save when we click on it.

### Scroll Bar

When a document, webpage, or picture exceeds the size of its window, scroll bars appear to allow to see the information that is currently out of view. It appears at right side and bottom of window, which are called horizontal and vertical scroll bars. It has an arrow on both ends and a box in the middle that we use with the help of mouse to move the pages up and down. We click the up or down scroll arrows to scroll the window's contents up or down in small steps and hold down the mouse button to scroll continuously. When click an empty area of a scroll bar above or below the scroll box to scroll up or down one page and drag a scroll box up, down, left, or right to scroll the window in that direction. To move down, up, right and left a page in a document we use scroll bar.

### Menu Bar

In the Windows operating system, each window contains its own menu that contains commands which perform specific actions when they have been selected. It is found just under the title bar and menu contains several choices that will access drop-down menus of options and actions. The menus of menu bar vary from one program to another.

There are some main options of menu bar

1. **File menu** : It contains options like new, open, close, save, save as send and print etc.
2. **Edit menu** : It contains options like undo, cut, copy, paste and clear etc.
3. **View menu** : It contains options for changing things appear on the screen such as Normal, Print Layout, and Toolbar etc.
4. **Insert menu** : It contains options like Header, Footer etc
5. **Help menu** : It contains options to access tutorials or helpful information.

#### **Types of Menu- Generally menu is two types.**

1. **Pull-Down Menu** : It is also called drop-down menu. It is a menu of options that appear just below the menu bar which we access by clicking with mouse. Fields with a drop-down menu have a small downward-pointing arrow next to them. You click the arrow and a list of options appears. You select the option you want from the list. You can also open the drop-down menu by holding down the Alt key and pressing the down arrow. We can use the arrow keys to move up and down in a drop-down menu. You can also move to an item by typing the first few letters of the option. Some commands are faded or dimmed means the command is not currently accessible.

2. **Pull-up menu** : It is also a menu of options that appears just up of option which we select with mouse.

Any option of menu can open by clicking a mouse or pressing Ctrl key with underline letter of that option. Some options have symbols such as—

1. **Triangle ( )** : A small triangle in right side of command indicates that has another submenu and after clicking on it opens another submenu.
2. **Ellipses (...)** : It indicates that command needs additional information. So by using this command a dialog box appears for selecting or inputting information.
3. **Dot (.)** : It appears at the left side of option, which indicates that only one option can be selected.
4. **Check Mark ( )** : It appears at the left side of active options. Its boxes allow to select one or more options at the same time.
5. **Gray option** : If any command is currently inactive, unavailable and cannot be clicked, it is shown in gray or light color.

#### **Toolbar**

Under the Menubar, we will often find a toolbar. It is a bar of command icons that allow us to perform specific tasks within a program. For example, in WordPad, the toolbar contains buttons which we can click to apply bold formatting to text, print a file, or open a new document etc. The toolbar buttons provide shortcuts to common tasks frequently accessed from the menus.

## Shortcut Keys

It has been written in front of commands. It provides an easier and usually quicker method of navigating and using programs. Shortcut keys enable the user to select a command without using the menus. Shortcut keys generally combine the Alt, Ctrl or Shift key with a letter key. If a shortcut key is available, it is listed on the pull-down menu to the right of the command. As example to open a file or folder we have to press 'Ctrl+O' and save the file 'Ctrl+S' e.t.c as shortcut keys.

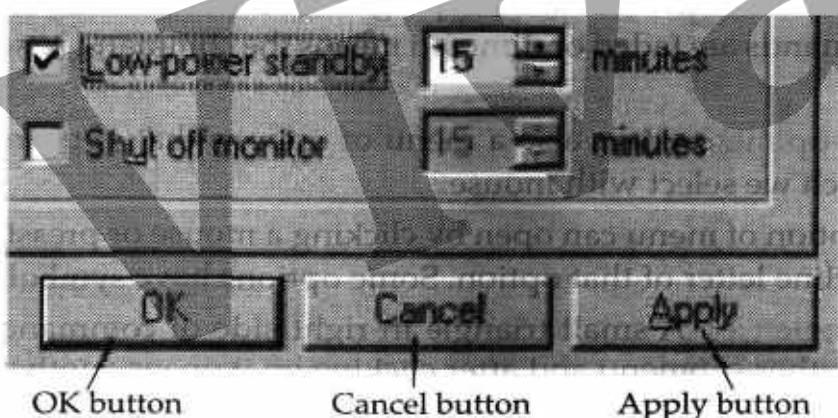
## Dialog box

Dialog box is a small, secondary window that contains options and buttons for completing a task. For example, when the user saves a file first time, a dialog box appears with options for naming the file and choosing which folder to save it in. Titlebar of this box also contains name of the box and close button.

### Elements of dialog box

These are the elements of dialog box.

1. **OK button** : When clicking on the OK button, save the settings or carry out the commands specified in the dialog box and close the dialog box.



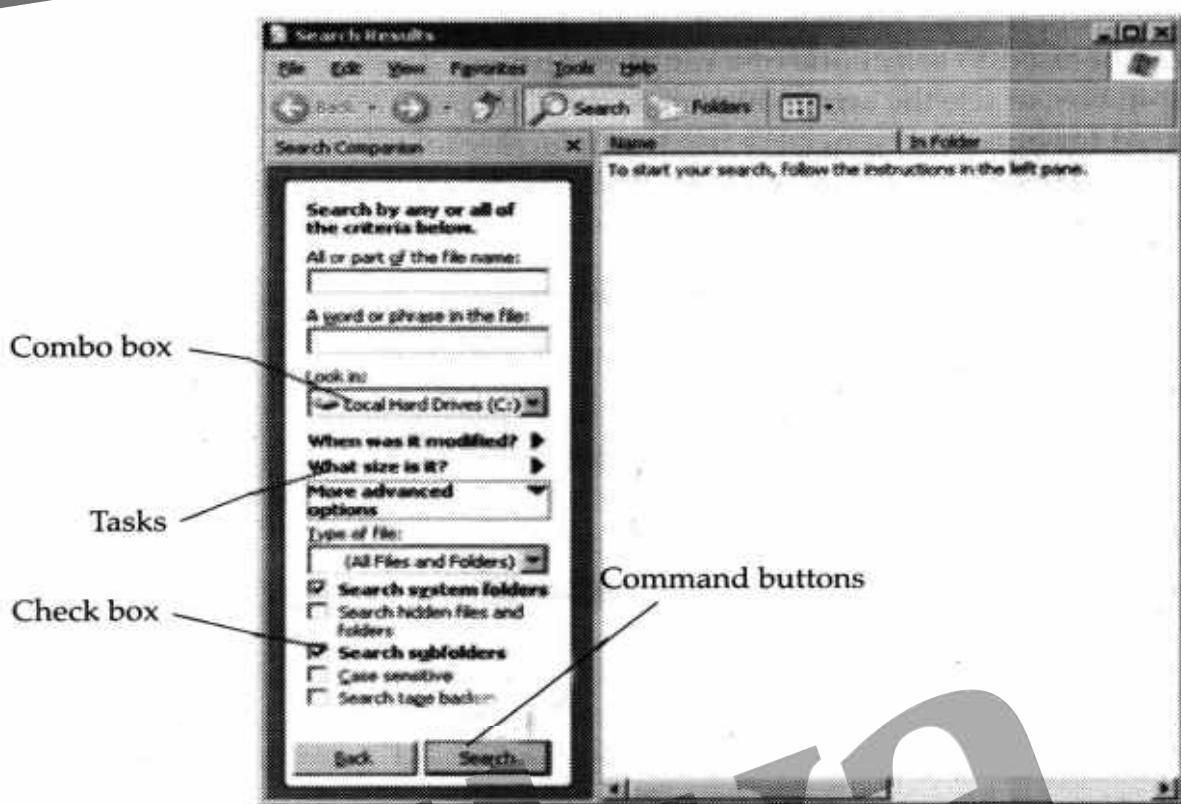
2. **Cancel button** : When clicking on the Cancel button, close the dialog box and restore the settings in the dialog box to the state they were in when the dialog box was opened.

3. **Apply button** : Use the Apply button to carry out the changes users specify in the dialog box without closing the dialog box.

4. **Tab** : In some dialog boxes, options are divided into two or more tabs. Tabs represent multiple pages of a dialog box. Only one tab, or set of options, can be viewed at a time. Choosing a tab changes the options that appear in the dialog box.

5. **Option button** : Option buttons present a group of related choices from which we can choose only one. Simply click on the option button which we want to select, and all others become deselected.

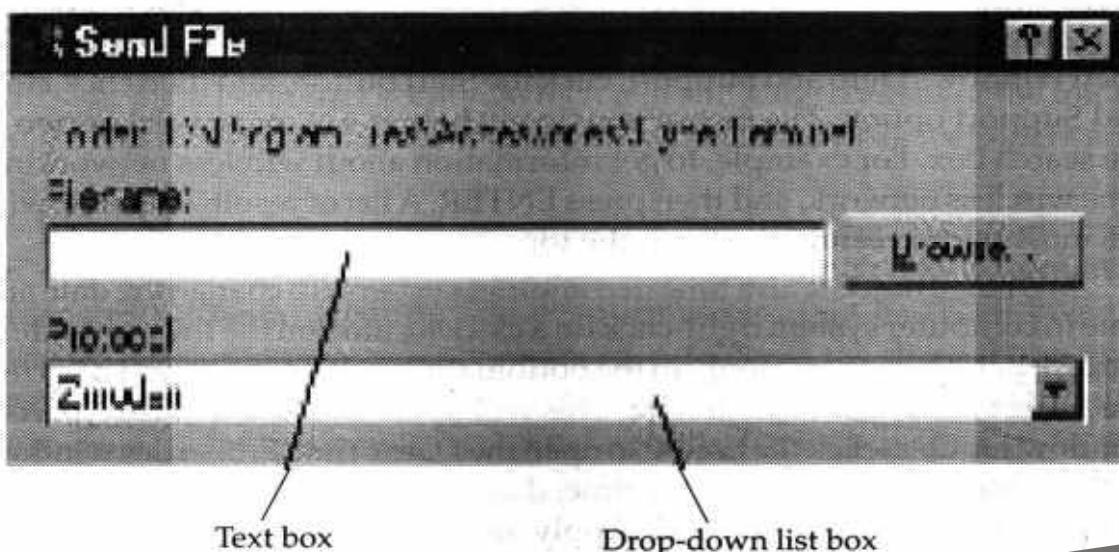
6. **Check box** : Check boxes present a single option or group of related options. A check mark appears in the box next to an option to indicate that it is active.



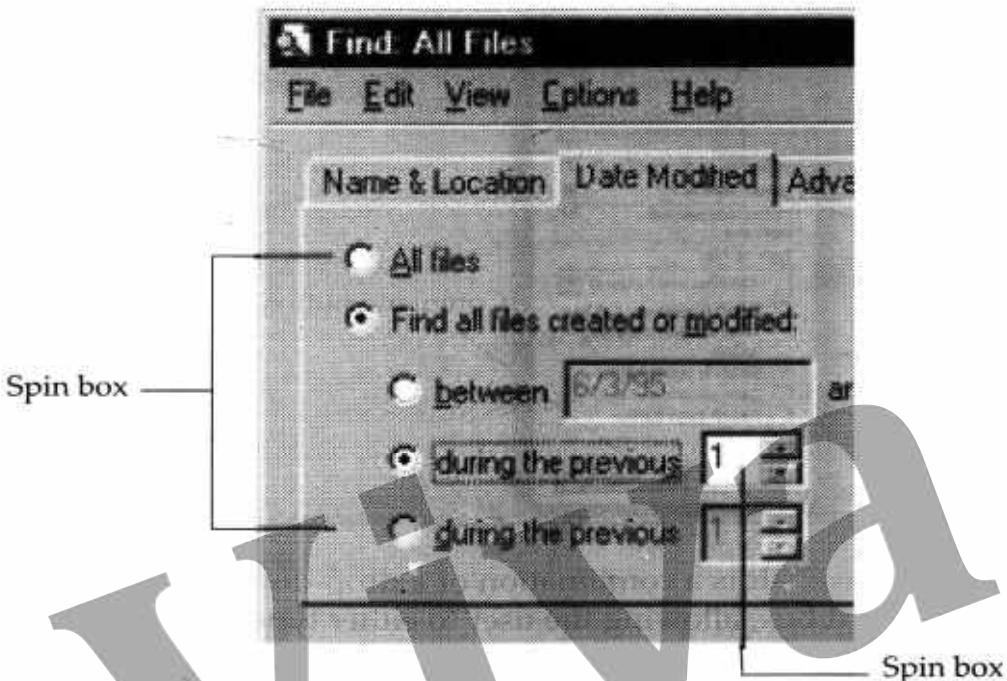
**7. Combo box :** It is a combination of a drop-down list or list box and a single-line text box, allowing the user to either type a value directly into the control or choose from the list of existing options.

**8. Text box :** A text box allows to type information, such as a search term, password, name for a file which we want to save or a path we want to use to find a specific file. A blinking vertical line called the cursor indicates where text that we type will appear.

**9. Drop-down list box :** This box is a single-line list box with a down-arrow button to the right of it. When you click on the arrow, the drop-down list box opens to display a list of choices. We choose a choice. When closed, a drop-down list shows only the currently selected choice. The other available choices are hidden until we click the control.



10. Spin box : A text box with a set of arrow button on the right side that can be used to select one of a range of options. The user may type into the spin box, or use the arrow buttons to scroll through available options. Often used for numeric inputs. We use the up arrow to increment a value and the down arrow to decrement a value. We can also type the value directly into the box.



11. Group box : Group box is rectangular box with optional labels. It is a group of related controls such as option buttons, check boxes, or closely related contents into one visual unit.

12. Slider : A slider is a way to adjust a setting within a range of values, such as from slow to fast, small to large, soft to loud etc. Simply hold down the mouse button on the lever and move it in the desired direction. A slider along the bar shows the currently selected value.

**Help in Windows :** Windows Help and Support is the built-in help system for Windows. It's a place to get quick answers to common questions, suggestions for troubleshooting, and instructions for how to do things. To open Windows Help and Support, click the Start button, and then click Help and Support option. The fastest way to get help is to type a word or two in the search box. For example, to get information about wireless networking, type wireless network, and then press ENTER. A list of results appears, with the most useful results shown at the top.

**To change the date and time in computer system :** To change the date and time in computer system right-click on a clock located on the the right side of the task bar. This is commonly in the bottom right hand of taskbar. Then click the Adjust Date / Time menu item. This will open the Date / Time Properties window. Double-click the time also open the Date / Time Properties window. In this window we can adjust the time, date, and time zone. Once the proper date and time has been set, click Apply and then OK.

To change the desktop appearance and background : We can change the general look of desktop by changing the desktop appearance and background. To open the 'Display property' dialog box, right-click an empty area of desktop, and then click Properties. After changing click ,Apply to test a changes. If we don't like to change any settings click Cancel, and return. After that click OK to close the Display Properties dialog box.

There are following options in display property window-

1. Theme : Theme is a collection of visual elements and sounds for computer desktop. A theme determines the look of the various visual elements of desktop, such as windows, icons, fonts, and colors, and it can include sounds.
2. Desktop background : Desktop background is also called wallpaper. It can be a digital picture from personal collection or one that comes with Windows. We can also select a color for our desktop background or use a color to frame our background picture.
3. Screen saver : A moving picture or pattern that appears on a computer screen when the mouse or keyboard has not been used for a specified period of time.
4. Appearance : It finetunes the color and style of our window. It provides more potential customizations into one area than any other in Windows between the Windows and Buttons, Color Scheme, and Fonts etc.
5. Settings : Using this option we adjust our monitor resolution, which changes the view, so more or fewer items fit on the screen. We can also control monitor refresh rate.

**Windows Explorer** : The Explorer is a necessary tool in an operating system, since with it we can organize and control the files and folders of the different storage systems such as the hard drive, disk drive, etc.

To start the Windows Explorer

1. Click on 'Start'
2. Select 'All programs'
3. Select 'Accessories'
4. Select 'Windows Explorer'

The explorer consists basically of two sections. On the left side there is the directory tree, which is the list of units and folders that we have. On the right side there is another section, which will show the content of the folder that we have opened on the left section. This section shows its folders and files.

Windows Explorer is also known as the 'File Manager'. Through it we can delete, see, copy, or move files and folders. A file is text documents, spreadsheets, digital pictures, and even songs etc., that has been given a name and is stored in secondary memory. A folder is the place that a user can create to store group of files. Computer represents files and folders with icons. Each folder has facility to Open, Explore, Search, Winzip, Cut, Copy, Delete, Rename and Create shortcut. Files are organized by storing them in folder.

**To change the desktop appearance and background :** We can change the general look of desktop by changing the desktop appearance and background. To open the 'Display property' dialog box, right-click an empty area of desktop, and then click Properties. After changing click, Apply to test a changes. If we don't like to change any settings click Cancel, and return. After that click OK to close the Display Properties dialog box.

There are following options in display property window-

1. **Theme :** Theme is a collection of visual elements and sounds for computer desktop. A theme determines the look of the various visual elements of desktop, such as windows, icons, fonts, and colors, and it can include sounds.

2. **Desktop background :** Desktop background is also called wallpaper. It can be a digital picture from personal collection or one that comes with Windows. We can also select a color for our desktop background or use a color to frame our background picture.

3. **Screen saver :** A moving picture or pattern that appears on a computer screen when the mouse or keyboard has not been used for a specified period of time.

4. **Appearance :** It finetunes the color and style of our window. It provides more potential customizations into one area than any other in Windows between the Windows and Buttons, Color Scheme, and Fonts etc.

5. **Settings :** Using this option we adjust our monitor resolution, which changes the view, so more or fewer items fit on the screen. We can also control monitor refresh rate.

**Windows Explorer :** The Explorer is a necessary tool in an operating system, since with it we can organize and control the files and folders of the different storage systems such as the hard drive, disk drive, etc.

To start the Windows Explorer

- |                         |                              |
|-------------------------|------------------------------|
| 1. Click on 'Start'     | 2. Select 'All programs'     |
| 3. Select 'Accessories' | 4. Select 'Windows Explorer' |

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**1. Open :** Opening a file or folder is needed to editing, viewing, printing, and sharing information. First find the file or folder that we want to open. Then double-click the file or folder to open it. Double-clicking a file automatically opens its associated program.

**2. Explore :**

**3. Search :** When we need to find a particular file, we will know that it is located somewhere in a common folder like Documents or Pictures etc. Search box is located at the top of every folder. To find a file, open the folder that contains the file, click the Search box, and start type the of that file or part of file name. The Search box filters the current view based on the text that typed. Files are displayed as search results if search term matches the file's name.

**4. Winzip :** Compressed files take up less storage space and can be transferred to other computers more quickly than uncompressed files. To compress a file locate the file or folder that we want to compress. Right-click the file or folder then click on winzip option. A new compressed folder is created. To rename it, right-click the folder, click Rename, and then type the new name.

**5. Cut and paste :** This option is used to store the file any other places. Cut is a command used to remove text, graphics and files and it is then stored on a clipboard so we can paste it.

**6. Delete :** To delete locate a file or folder that we want to delete. Right-click the file or folder then click Delete. When we delete a file or folder, it is not deleted right away. Instead, it is stored in the Recycle Bin and we can get the deleted file by using Restore option in Recycle Bin until the Recycle Bin is emptied.

**7. Rename :** Using it we give a new name to a file. To rename a file, we do not need to open the file. Right-click the file that we want to rename, and then click Rename. Type the new name, and then press ENTER.

**8. Properties :** Properties are descriptive information that help us to find and organize files. To view the properties of any file and folder Right-click the file whose properties we want to see, and then click Properties. They provide information such as type, location, size, created date and many other properties of files.

There are two more option

**(a) Read only :** Setting a file to read-only helps to protect the file from accidental deletion and changes to the file's content. If a file is set to read-only, we will not be able to save changes to it unless we turn off the file's read-only status.

**(b) Hidden :** Setting a file to hidden it shows in tree view.

In a system running Windows XP, to conserve PC power, we actually have three choices : shut down, hibernate, and standby.

**Stand by :** Standby drops the computer into a very low power mode. This mode saves significant electrical consumption compared to leaving a device fully on and idle but allow the user to avoid having to reset programming

codes or wait for a machine to reboot. When the system is placed in this mode, aside from the RAM which is required to restore the machine's state, the computer attempts to cut power to all unneeded parts of the machine. Because of the large power savings, most laptops automatically enter this mode when the computer is running on batteries and the lid is closed. The display turns off, the disk drive stops spinning, and the processor shuts down almost completely. In standby, power is used mainly to keep the contents of random access memory refreshed.

**Hibernate** : It is a feature of many computer operating systems where the contents of RAM are written to non-volatile storage such as a hard disk, before powering off the computer. When the computer is restarted it reloads the content of memory and is restored to the state it was in when hibernation was invoked. While starting from a hibernated state is usually quicker than starting up and opening all applications, it still requires a few seconds or more, depending on the system's general speed.

**Shutdown** : It turns a machine off. To shutdown check that if any users are currently on the system. If they are, ask them to log off. Once all of the users are logged off of the system, we may execute the 'shutdown' command.

### Useful programs inside windows

1. **Notepad** : Notepad is a basic text editing program and it is most commonly used to view or edit text files. A text file is a file type typically identified by the .txt file name extension.

**To open a Notepad** : Click Start Programs Accessories Notepad

2. **Word pad** : Word Pad is a text-editing program and we can use to create and edit documents. Unlike Note pad, Word pad documents can include complex formatting and graphics such as pictures or other documents within a Word Pad document.

**To open a Word pad** : Click Start Programs Accessories Word pad.

3. **Paint** : Paint is a drawing program that we can use to create drawings or edit digital pictures. We can also use Paint to save picture files using different file formats.

**To open a Paint** : Click Start Programs Accessories Paint

4. **Calculator** : We can use Calculator to perform addition, subtraction, multiplication, and division. Calculator also offers the advanced capabilities of scientific and statistical calculators.

**To open a Calculator** :

Click Start >> Programs >> Accessories Calculator.

5. **Phone Dialer** :

**To open a Phone Dialer** : Click Start >> Programs >> Accessories >> Phone Dialer

6. **Imaging**

**To open a imaging** : Click Start >> Programs >> Accessories >> Scanner and Camera wizard.

7. **Media Player** : Windows Media Player provides an easy-to-use interface to play digital media files, organize digital media collection, burn CDs of favorite music, rip music from CDs etc.

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**To open a Media Player :**

Click Start >> Programs >> Accessories >> Entertainment >> Media Player

8. CD Player : Using this we can use our computer system as a powerful CD Player.

**To open a CD Player :** Click Start >> Programs >> Accessories >> Entertainment >> CD Player

9. Sound recorder and Volume control -Using Sound Recorder, we can record sound as a digital media file on computer from a variety of devices, such as a microphone that is plugged in to sound card.

**To open a Sound recorder :** Click Start >> Programs >> Accessories >> Entertainment >> Sound recorder

We can control the overall level of sound using Windows.

**To open a Volume control :**

Click Start >> Programs >> Accessories >> Entertainment >> Volume control

10. Game : Windows comes with a small set of games that we can play.

**To open a Game :** Click Start >> Programs >> Accessories >> Entertainment >> Game

11. Clipboard : The Clipboard is a temporary storage area for information that we have copied or moved from one place to somewhere else. We can select text or graphics and then use the Cut or Copy commands to move our selection to the Clipboard, where it will be stored until we use the Paste command to insert it elsewhere.

### ■ ■ ■ Objective Question ■ ■ ■

1. The ..... of software contains lists of commands and option.
  - (a) Menu bar
  - (b) Tool bar
  - (c) Title bar
  - (d) Formula bar
  - (e) None of these
2. MS. Office 2000 was developed by ..... .
  - (a) Novel
  - (b) Coral
  - (c) Lotus
  - (d) Microsoft
  - (e) None of these
3. Founder of Microsoft company is—
  - (a) Paul Allen
  - (b) Bill Gates
  - (c) Both
  - (d) All of These
  - (e) None of these
4. Microsoft is an ..... .
  - (a) Organization to manufacture a microchip
  - (b) Organization to develop a software
  - (c) Organization for micro engineering
  - (d) Organization to manufacture hardware
  - (e) None of these
5. A small arrow or blinking symbol on desktop is called a ..... .
  - (a) Mouse
  - (b) Logo
  - (c) Hand
  - (d) Cursor
  - (e) Palm



- 19.** If text was highlighted and 'Edit' 'Copy' was clicked, what would happen ?  
 (a) Text would be copied from the document and placed in the clipboard  
 (b) Text would be removed from the document and placed in the clipboard  
 (c) Text from the clipboard would be placed in the document at the place where the cursor is blinking  
 (d) Only b and c (e) None of these
- 20.** At which button is Help Menu available ?  
 (a) End (b) Start (c) Turn off  
 (d) Restart (e) None of these
- 21.** You can keep your personal files/ folders in .....  
 (a) My folder (b) My documents (c) My files  
 (d) My text (e) None of these
- 22.** Data that is copied from an application is stored in the .....  
 (a) Driver (b) Terminal (c) Prompt  
 (d) Clipboard (e) None of these
- 23.** Various applications and documents are represented on the windows desktop by .....  
 (a) Symbols (b) Labels (c) Graphs  
 (d) Icons (e) None of these
- 24.** All the deleted files go to .....  
 (a) Recycle Bin (b) Task bar (c) Tool bar  
 (d) My computer (e) None of these
- 25.** The rectangular area of the screen that displays a program, data and / or information is a .....  
 (a) Title bar (b) Button (c) Dialog box  
 (d) Window (e) None of these
- 26.** A ..... contains commands that can be selected.  
 (a) Pointer (b) Menu (c) Icon  
 (d) Button (e) None of these
- 27.** Text and graphics that have been cut or copied are stored in an area called the .....  
 (a) Paste board (b) Copy board (c) Clip board  
 (d) Cutting board (e) None of these
- 28.** What is the significance of a faded (dimmed) command in a pull-down menu ?  
 (a) The command is not currently accessible  
 (b) A dialog box appears if the command is selected  
 (c) A help window appears if the command is selected  
 (d) There are no equivalent keystrokes for the particular command  
 (e) None of these
- 29.** Generally, you access the recycle bin through an icon located .....  
 (a) On the desktop (b) On the hard drive  
 (c) On the short cut menu (d) In the properties dialog box  
 (e) None of these
- 30.** What menu is selected to cut, copy, and paste ?  
 (a) File (b) Edit (c) Tools  
 (d) Table (e) None of these

**31.** What is a file ?

- (a) A file is a section of main storage used to store data.
- (b) A file is a collection of information that has been given a name and is stored in secondary memory.
- (c) A file is the part of a program that is used to describe what the program should do.
- (d) Floppy disks can only store data, not programs.
- (e) None of these

**32.** When you cut or copy information it gets place in the .....

- (a) Clipart
- (b) Clipboard
- (c) Internet
- (d) Mother board
- (e) None of these

**33.** Deleted data remains on a disk until .....

- (a) The data is overwritten
- (b) The recycle bin is emptied
- (c) A file compression utility is used
- (d) The disk is scanned
- (e) None of these

**34.** Which is a graphical representation of an application ?

- (a) Windows 95
- (b) Windows Explorer
- (c) Icon
- (d) Taskbar
- (e) None of these

**35.** The side bar in a window or word processor that has an arrow on both ends and a box in the middle that you use your mouse to move the pages up or down—

- (a) Scroll bar
- (b) Roll bar
- (c) Page bar
- (d) Box bar
- (e) None of these

**36.** To shrink a window to an icon .....

- (a) Open a group window
- (b) Minimise a window
- (c) Maximise a window
- (d) Restore a window
- (e) None of these

**37.** Something which has easily-understood instructions is said to be .....

- (a) Analog data
- (b) Digital data
- (c) Modem data
- (d) Watts data
- (e) None of these

**38.** The portion that shows all the choices you can make while working in a window is called the .....

- (a) Options
- (b) Table
- (c) Menu bar
- (d) Item bar
- (e) None of these

**39.** A (n) ..... contains commands that can be selected.

- (a) Pointer
- (b) Menu
- (c) Icon
- (d) Button
- (e) None of these

**40.** A (n) ..... is a small image that represents a program, an instruction, a file, or some other object.

- (a) Keyword
- (b) Interface
- (c) Menu
- (d) Icon
- (e) None of these

**41.** A ..... is an icon on the desktop that provides a user with immediate access to a program or file.

- (a) Kernel
- (b) Buffer
- (c) Shortcut
- (d) Spooler
- (e) None of these

**42.** Date and Time are available on the desktop at .....

- (a) Keyboard
- (b) Recycle bin
- (c) My computer
- (d) Task bar
- (e) None of these

43. A symbol on the screen that represents a disk, document or program that you can select .....
- (a) Keys (b) Caps (c) Icon  
(d) Monitor (e) None of these
44. To "maximize" a window means to .....
- (a) Fill it to capacity (b) Expand it to fit the desktop  
(c) Put only like files inside (d) Drag it to the Recycle bin  
(e) None of these
45. Easy to use .....
- (a) User friendly (b) Select (c) Helpful  
(d) Ever-ready (e) None of these
46. Choices are referred to as .....
- (a) Options (b) Exit (c) Boot  
(d) Folder (e) None of these
47. A place that a user can create to store files .....
- (a) Cursor (b) Text (c) Folder  
(d) Boot (e) None of these
48. Commands at the top of a screen such as FILE-EDIT-FONT-TOOLS to operate and change things within programs .....
- (a) Menu bar (b) Tool bar (c) User friendly  
(d) Word processor (e) None of these
49. To insert a copy of the clipboard contents, whatever was last cut or copied at the insertion point .....
- (a) Paste (b) Stick in (c) Fit in  
(d) Push in (e) None of these
50. The command used to remove text or graphics from a document. The information is then stored on a clipboard so you can paste it.
- (a) Chop (b) Cut (c) Clip  
(d) Cart away (e) None of these
51. To move down a page in a document .....
- (a) Jump (b) Fly (c) Wriggle  
(d) Scroll (e) None of these
52. Screen that comes on when you turn on your computer that shows all the icons .....
- (a) Desktop (b) Face to face (c) Viewer  
(d) View space (e) None of these
53. Each ..... on a menu performs a specific action.
- (a) Client (b) Server (c) Node  
(d) Command (e) None of these
54. A menu contains a list of .....
- (a) Commands (b) Data (c) Objects  
(d) Reports (e) None of these
55. Files are organized by storing them in .....
- (a) Tables (b) Databases (c) Folders  
(d) Graphs (e) None of these

56. .... is when the more power-hungry components, such as the monitor and the hard drive are put in idle.
- Hibernation
  - Power down
  - Stand by mode
  - The shutdown procedure
  - None of these
57. When you install a new program on your computer, it is typically added to the ..... menu.
- all programs
  - select programs
  - start programs
  - desktop programs
  - None of these
58. A ..... contains buttons and menus that provide quick access to commonly used commands.
- menu bar
  - toolbar
  - window
  - action bar
  - None of these
59. Which of the following menu types is also called a drop-down menu?
- fly-out
  - cascading
  - pop-up
  - pull-down
  - None of these
60. Most application software today comes with an interface called a(n)...
- graphical user interface
  - character user interface
  - icon user interface
  - button user interface
  - None of these
61. .... shows the files, folders, and drives on your computer, making it easy to navigate from one location to another within the file hierarchy.
- Microsoft Internet Explorer
  - Windows Explorer
  - My Computer
  - Folders Manager
  - None of these
62. .... are lists of commands that appear on the screen.
- GUIs
  - Icons
  - Menus
  - Windows
  - None of these
63. Each ..... on a menu performs a specific action.
- client
  - server
  - node
  - command
  - None of these
64. A(n) .... uses pictures (called icons) and menus displayed on the screen to send commands to the computer system.
- command-based user interface
  - GUI
  - system utility
  - API
  - None of these
65. The ..... allows you to access objects and start programs.
- Default menu
  - XP menu
  - Start menu
  - Stop menu
  - None of these
66. "GUI" stands for .....
- Gnutella Universal Interface
  - Graphical User Interface
  - Graphic Uninstall/Install
  - General Utility Interface
  - None of these
67. What is Windows Explorer ?
- A drive
  - APC
  - A Wev browser
  - A network
  - A file manager
68. The ..... is the term used to describe the window that is currently being used.

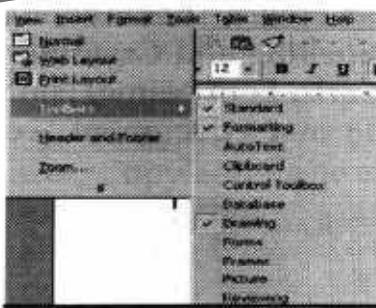
**Computer**

- (a) Web Window      (b) display area      (c) WordPad Window  
 (d) active Window      (e) monitor
69. Files deleted from the hard disk are sent to the .....  
 (a) Recycle Bin      (b) floppy disk      (c) clipboard  
 (d) motherboard      (e) None of these
70. The copy command saves to .....  
 (a) the desktop      (b) the clipboard      (c) printer  
 (d) Microsoft Word      (e) paste
71. Windows 95, Windows 98, and Windows NT are known as what ?  
 (a) processors      (b) domain names      (c) modems  
 (d) operating systems (e) None of these
72. The taskbar is located .....  
 (a) on the Start menu      (b) at the bottom of the screen  
 (c) on the Quick Launch toolbar (d) at the top of the screen  
 (e) None of these
73. Generally, you access the Recycle Bin through an icon located .....  
 (a) on the desktop      (b) on the hard drive  
 (c) on the shortcut menu      (d) in the Properties dialog box  
 (e) None of these
74. The Recycle Bin stores discarded items until .....  
 (a) another user logs on      (b) the computer is shut down  
 (c) the end of the day      (d) you empty it  
 (e) None of these
75. A blinking indicator that shows you where your next action will happen .....  
 (a) CPU      (b) Cursor      (c) Tool bar  
 (d) Boot      (e) None of these
76. Which of the following is the first step in sizing a window ?  
 (a) Point to the title bar  
 (b) Pull down the view menu to display the toolbar  
 (c) Point to any corner or border  
 (d) Pull down the view menu and change to large icons  
 (e) None of these
77. In Windows, Icons such as Add / Remove program Add New Hardware, Modems etc, are found in—  
 (a) Control Panel      (b) Network Neighbourhood  
 (c) My Computer      (d) Task Bar

**Answers**

- |         |         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|---------|
| 1. (a)  | 2. (d)  | 3. (c)  | 4. (b)  | 5. (d)  | 6. (d)  | 7. (d)  |
| 8. (d)  | 9. (a)  | 10. (e) | 11. (a) | 12. (d) | 13. (a) | 14. (a) |
| 15. (b) | 16. (b) | 17. (c) | 18. (a) | 19. (a) | 20. (b) | 21. (b) |
| 22. (d) | 23. (d) | 24. (a) | 25. (d) | 26. (b) | 27. (c) | 28. (a) |
| 29. (a) | 30. (b) | 31. (b) | 32. (b) | 33. (b) | 34. (c) | 35. (a) |
| 36. (b) | 37. (a) | 38. (c) | 39. (b) | 40. (d) | 41. (c) | 42. (d) |
| 43. (c) | 44. (b) | 45. (a) | 46. (a) | 47. (c) | 48. (a) | 49. (a) |
| 50. (b) | 51. (d) | 52. (a) | 53. (d) | 54. (a) | 55. (c) | 56. (c) |
| 57. (a) | 58. (b) | 59. (d) | 60. (a) | 61. (c) | 62. (c) | 63. (d) |
| 64. (a) | 65. (c) | 66. (b) | 67. (e) | 68. (d) | 69. (a) | 70. (b) |
| 71. (d) | 72. (b) | 73. (a) | 74. (d) | 75. (b) | 76. (a) | 77. (c) |

★★★



## Microsoft Office

Microsoft Office is an office suite of interrelated desktop applications, servers and services for the Microsoft Windows. It is a horizontal market software that is used in a wide range of industries. Microsoft Office was introduced by Microsoft in 1989 for Macintosh. Again it introduced Windows in 1990. After that many new versions were released. Microsoft Office for Windows 1.0 started in October 1990 with three applications Microsoft Word for Windows 1.1, Microsoft Excel for Windows 2.0, and Microsoft PowerPoint for Windows 2.0. In 1994, Microsoft Office 4.0 was released containing Word 6.0, Excel 5.0, PowerPoint 4.0, Mail, and Access. More versions are Microsoft Office 95, Microsoft Office 97, Microsoft Office 2000, Microsoft Office XP, Microsoft Office 2003, Microsoft Office 2003 and Microsoft Office 2007.

**Microsoft Word :** Microsoft Word is a popular word processing package which provides facilities to write common letters to desktop publishing. This means that it is useful for typing and storing letters, articles, brouchers, tests, quizzes and anything that consists mainly of words. Many organisations now use computers to produce and organize written material, correspondence, membership lists and so on. These are possible with the most common program MS-Word, that is used on most computers. It provides an incredibly powerful tool to create and share documents.

**To open or start Microsoft Word :** There are two methods to open or start Microsoft Word.

1. Double click on Microsoft Word icon on desktop.
2. Click on the Start button in the bottom left hand corner of computer screen.
3. When the menu pops up, move our mouse up to Programs. A sub menu will appear showing all the software we have.
4. Now click Microsoft office then select Microsoft Word from them. Microsoft Word will start up.

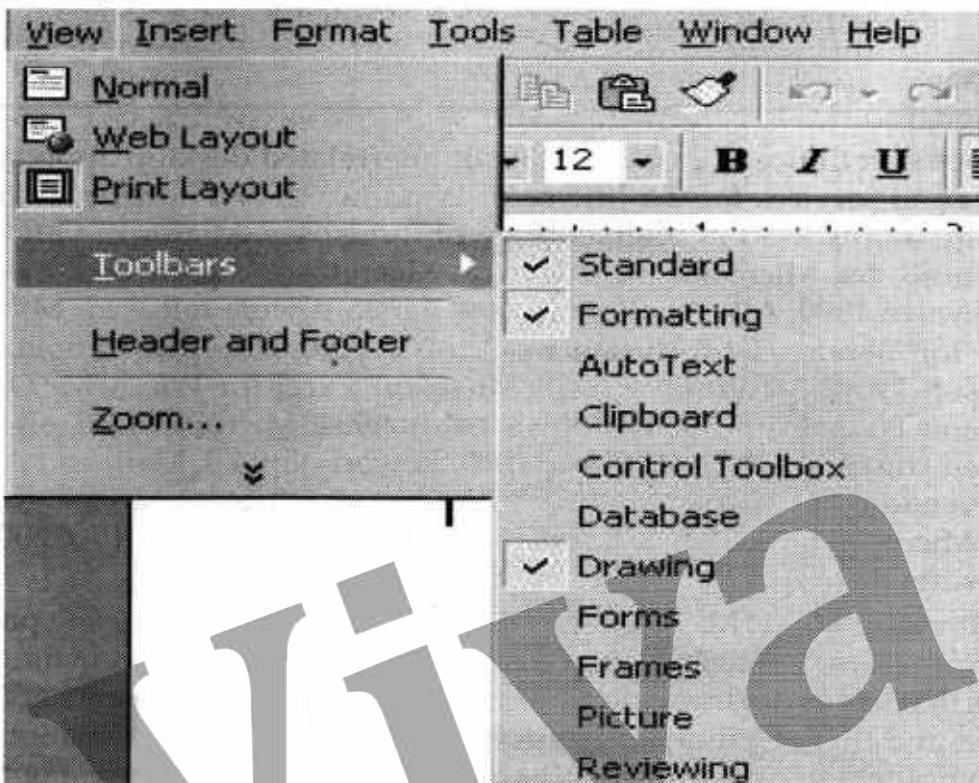
Click Start >> Program >> MS-Office >> MS-Word

### Viewing the Toolbar

In Microsoft Word the toolbar is the line of boxes and symbols that are shortcuts of many commands and appear across the top of the computer screen. It increases the working capacity of a user. We may recognize it by the picture of a file folder, scissors, and paint brush etc.

If the toolbar does not appear at the top of the screen, pull down the View menu in Menubar and select Toolbars. In the Toolbars dialog box, click standard, formatting, drawing and then OK.

In all toolbars a standard toolbar is used more than others. The standard toolbar has tools such as New, Open, Close, Save, Spelling and Grammar etc. and Formatting toolbar has tools such as Font Style, Font Name, Font Size, Margin, Paragraph and Bullets etc. When we format a document, we change its appearance.



**Creating a document :** When we create a document, we enter text or number, insert images and perform other tasks using input devices. To create a document we start word, a new document window opens. This is a blank page, where we start typing. After the first page gets over we automatically go to the next page.

**Another method to create a new document is**

1. On the File menu from Menubar, click New.
2. Select the Blank Document in pull-down menu.

**Save a document :** After we create or edit a document, we try to save it. A command that saves our work on into the hard drive, or onto a disk is Save. When we save a document, the computer transfers the document from memory to a storage medium such as hard disk or USB flash drive. A saved document is referred to as a file. Hence, to save any file.

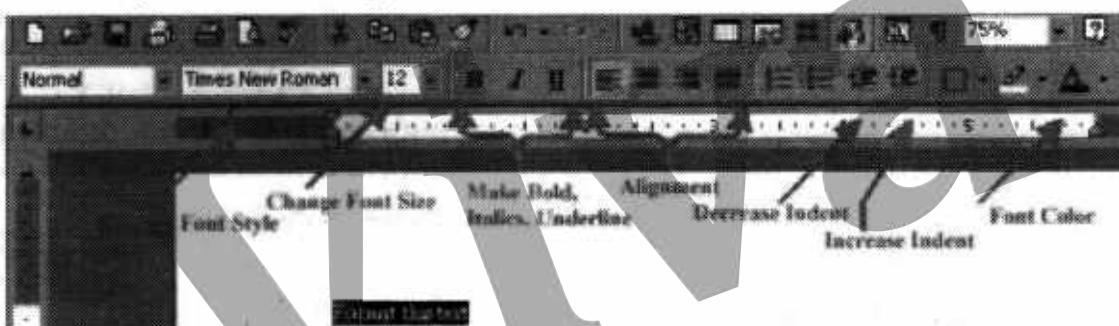
1. Select File option from Menubar, click Save.
2. Select the location or drive to store a file and enter a name for the file or filename in the File name box.
3. Click Save.

A file name is a unique name that a user gives to a file, but two different files can have the same name if they are in different folders. In Microsoft Word .doc is file name extension by default. Filename extension represents a file type such as .bas for Basic source code file, .htm for Hypertext Markup Language file, .bat for DOS batch file and .doc for word document file etc.

**2. Close a document:** When we want to close a document without leaving the application, we use on the File menu from Menu bar, click Close.

**Editing a document :** We can open a document and modify it the way we want. It can be possible by using the Edit features in word such as Cut, Copy and Paste etc. To edit a document means to make changes to its existing content. Cut is the process of removing a portion of the document and storing it in a temporary storage location, called a clipboard. Paste is a process of transferring an item from a clipboard to a specific location in a document. Editing a document consists of reading through the document created by a user and correcting the errors. The edit buttons are also found in standard tool bar. After editing document must be saved again to store the changes.

**Formatting Text:** When we format a document, we change its appearance. We can format a text by changing fonts, font size, and font style etc. A font is a name assigned to a specific design of characters. Font size indicates the size of characters in a particular font. Font style adds emphasis to a font, Bold, Italic, Underline and colour. MS-Word provides a wide variety of text formatting, which add a professional look to documents.



1. Select or highlight the text by holding down left mouse button click which we want to format.
2. Go to the Format toolbar menu and select buttons such as Font tab, Font, Font Style, Font Size, Font color, Bold, Italics and Underline etc. which we want to use.

**Inserting a Table :** Tables are an easy way to arrange data in a Word document. With tables, we can align data in columns and rows easily. There are many ways to insert tables in Word document. (Numbers and text in table columns are usually left aligned).

1. To insert a table click the Insert Table toolbar button when our cursor is positioned at the place in our document where we would like the table.
2. A grid will pop up allowing to select how many rows and columns we would like in table.
3. After selecting the number of rows and columns, click on OK. A table will be inserted.
4. While this method will create a table with uniform columns and rows, we can still customize a table.

### Inserting a picture

1. To insert a picture click the Insert option in Menubar when cursor is

positioned at the place in the document where we would like to insert a picture.

2. Select a Picture option in pull-down menu.
3. Select a Clip art or From File.
4. Select a picture and click insert.

### Inserting page number and date/time

1. To insert a picture, click the 'Insert' option in Menubar.
2. Select one by one 'Page Number' and 'Date and Time'.

### Spell check in document

The spell check looks for spelling mistakes in the text area. To remove spelling and grammar mistakes in a document we use a *Autospellcheck* tool. It indicates the wrong word by underlining it.

1. With the document open, click the Check Spelling and Grammar tools.
2. If a spelling error is found, a window opens with suggested corrections.
3. To accept the default correction, click Replace. If the initial suggestion is not the correct word, click on the correct word in the list of suggestions, or enter the word into the Replace with field, then click the Replace button.
4. Repeat these steps to correct all spelling errors. When there are no more errors, the message Spell check complete appears.
5. Click OK to return to editing the document.

### File operations in word

**Opening a document:** To open a document or get a file from the memory where it was stored we use Open command. It retrieves a saved document from computer's memory and bring it up on the screen to view. To open a document, complete the following steps—

1. Select File option from Menubar.
2. Click on the Open option in pull-down menu..
3. Click on the file from the available list.
4. Click on Open button.

### Copy a document :

The copy function can create a new copy of a document. To copy a document, complete the following steps—

1. Select File option from Menubar.
2. Click on the Open option in pull-down menu..
3. Find the document that we want to copy.
4. Select the document, then Right click. We get a pull-down menu where we select Copy option. It creates a copy of the document and places it on the clipboard.
5. Find the folder where we want to place the copy, then click Paste.

We can place a document copy in the same folder or a different folder. The document copy is now placed in the selected folder, with the name "*Copy of <Document Name>*"

**Send a document :** In order to e-mail a word document from within—

1. Select file option from menu bar.

2. select the option send to / mail recipient.

### **Move a document**

We use the move functions to rearrange and create new documents. The move function deletes the document in the original location and pastes it into a new location. The move function can also move a folder, including all the documents in that folder. To move a document, complete the following steps—

1. Select File option from Menu bar.
2. Click on the Open option.
3. Find the document that we want to move.
4. Select the document, then Right click. We get a pull-down menu where we select Cut option.
5. Find the folder where you want to place the moved document, then click Paste.

### **Rename a document**

To rename a document, complete the following steps—

1. Select File option from menu-bar.
2. Click on the Open option in pull-down menu.
3. Find the document that we want to rename.
4. Select the document, then Right click.
5. We get a pull-down menu where we select Rename option.
6. Give the new name to a file and press Enter.

To save a file into new location with new name we use 'Save as' option in File option from menu-bar.

### **Delete a document**

Deleting a document removes the document permanently. To delete a document, complete the following steps—

1. Select File option from menu bar.
2. Click on the Open option in pull-down menu.
3. Find the document that we want to delete.
4. Select the document, then Right click.
5. We get a pull-down menu where we select Delete option.

### **Undo and redo**

Every time the document is changed, we save the previous state on a list. To undo, we take the data at the current position in the list, and use it to restore the document. We also need to save the document state before we restore it. This enables us to redo. To delete a document, complete the following steps—

1. Press arrow mark of "Undo" button in the standard toolbar and we get a list of current work which we can undo.
2. If we do not want modification done by undo, then press 'Redo' to get back.

**Page preview :** We can see all pages of documents in page preview mode but cannot edit the document.

### Print a document

Print is a command that takes what has been typed and can be seen on the screen and sends it to the printer for output on paper. When we print a document, the computer prints the contents of the document on paper. By default it prints in portrait mode. To print a document, complete the following steps—

1. Select File option from menu-bar.
2. Click on the Print option in pull-down menu.
3. We get a print dialog box where we fill the needed information and after that click OK. Finally we get a print of a document.

**Create a header and footer :** Sometimes we want some information to appear on every page. This information would normally appear either in top or bottom of the page. We can insert it by using Header and Footer option. To create a header and footer, we can take the following steps—

1. Open an existing document and select View option of the menu bar.
2. Click on the Header and Footer option.
3. Click on Insert Page Number on the 'Header and Footer' toolbar to insert page number on the header.
- 4 Click on Insert Date icon on the 'Header and Footer' toolbar to insert date on the header.
- 5 Click on Insert Time icon on the 'Header and Footer' toolbar to insert time on the header.
6. Click on 'Switch between header and footer' to create a footer and repeat step.
7. Click 'Close header and footer' on header and footer toolbar.

### Insert a picture from the clipart

1. Move the cursor where we want clip art.
2. Click on 'Insert Clip-art' of Drawing toolbar.
3. Click on picture that we want to insert.
4. Close the clip art gallery.

### Text operations in MS-Word

**Find text :** To find text in a document, complete the following steps—

1. Select Edit option from Menubar.
2. Click on the Find and Replace option in pull-down menu.
3. Type the text in Find what window which we want to find.
4. Click on Find Next button.
5. Cursor will be placed at the first occurrence of the text.
6. Click on Find Next button to get the next occurrence.

**Find and Replace a text :** Find and Replace is the easiest way to locate and change a particular word or phrase in a document and modify it. To Find and Replace a text in a document, complete the following steps—

1. Select Edit option from Menubar.
2. Click on the Find and Replace option in pull-down menu.
3. Type the text in Find what window which we want to find and replace.
4. Click on Replace tab.

5. Type the text in the replace with text box.
6. Click on Replace button if we want to replace the text at only one place or Click on Replace All button if we want to replace the text all over document.

**Autocorrect Text:** The autocorrect feature in word automatically corrects certain spelling, typing, capitalization or grammar errors.

**Change case :** Sometimes we type a document in capitals by mistake. Rather than retying the whole section we can take the following stapes—

1. Select or highlight a text.
2. Go to Format option in Menubar.
3. Go to Change case and select any option from Sentence case, Lower case and Uppercase. It will correct it.

**Sentence case :** It changes first letter of sentence into capital letter and rest changes in small letter.

**Lower case :** It changes all letters into small letters.

**Uppercase :** It changes all letters into capital letters.

**Delete Text :** Deleting text means removing text and other contents.

**Table-I : Standard toolbar**



Tools Name	Keyboard Operation	Description
New Blank Document	Ctrl + N	Creates a new blank document based on the default template.
Open (File menu)	Ctrl + O	Opens or finds a file.
Save (File menu)	Ctrl + S	Saves the active file with its current file name, location and file format.
Mail Recipient		Sends document as e-mail body.
Print (File menu)	Ctrl + P	Prints the active file : for more print options go to the File menu and select Print.
Print Preview (File Menu)	Ctrl + F2	Print preview : Shows how the document will look when you print it.
Spelling and Grammar (Tools menu)	F7	Spelling, grammar and writing style checker.
Cut (Edit menu)	Ctrl + X	Cut : Removes the selection from the document and places it on the clipboard.
Copy (Edit menu)	Ctrl + C	Copies the selected item(s) to the clipboard
Paste (Edit menu)	Ctrl + V	Places the content of the clipboard at the insertion point.
Undo (Edit menu)	Ctrl + Z	Reverses the last command, uses pull-down menu to undo several steps.
Redo (Edit menu)	Ctrl + Y	Reverses the action of the Undo button, uses the pull-down menu to redo several steps

Tools Name	Keyboard Operation	Description
Hyperlink	Ctrl + K	Inserts hyperlink and displays the destination object, document or page.
Tables and Borders		Displays the Tables and Borders toolbar.
Insert Table		Inserts a table into the document, or makes a table of selected text.
Insert Excel Worksheet		Inserts an Excel spreadsheet into the Word document
Zoom		Enlarges or reduces the display of the active document
Office Assistant	F1	Provides help topics and tips to accomplish our task
Format Painter		Copies the format from a selected object or text and applies to other objects or text.

Table-II : Formatting Toolbar



Tools Name	Keyboard Operation	Description
Style	Ctrl + Shift + S	Selects the style to apply to paragraphs.
Font	Ctrl + Shift + F	Changes the font of the selected text.
Font size	Ctrl + Shift + P	Changes the size of the selected text and numbers.
Bold	Ctrl + B	Makes selected text and numbers bold.
Italic	Ctrl + I	Makes selected text and numbers italic.
Underline	Ctrl + U	Underlines selected text and numbers.
Align Left	Ctrl + L	Aligns to the left with a ragged right margin.
Centre	Ctrl + E	Centers the selected text.
Align Right	Ctrl + R	Aligns to the right with a ragged left margin.
Justify	Ctrl + J	Aligns the selected text to both the left and right margins.
Numbering		Makes a numbered list or reverts back to normal.
Bullets		Adds, or removes, bullets in a selected paragraph.
Decrease Indents		Decreases the indent to the previous tab stop.
Increase Indents		Indents the selected paragraph to the next tab stop.
Outside Borders		Adds or removes a border around selected text or objects.

Tools Name	Keyboard Operation	Description
Highlight		Marks text so that it is highlighted and stands out.
Font Color		Formats the selected text with the color we click.

Table-III : Tables and Borders Toolbar



Tools Name	Description
Draw Table	Creates a table by inserting horizontal and vertical lines using the mouse.
Eraser	Deletes unnecessary lines and borders from a table.
Line Weight	Assigns a line weight or thickness of the line of the border for the next table or line drawn or inserted.
Line Style	Assigns a style of border for the next table or line drawn.
Border color	Chooses from the colour palette the colour of the border for the next table or line drawn.
Outside Border	Assigns borders or lines to the selected table cells.
Fill color	Fills colour for the selected table cells or changes the prior colour.
Insert Table	Inserts a table into the document or into an existing table.
Merge Cells	Combines the selected cells within a row or column into one cell.
Split cells	Splits the selected cells into the specified number of rows and columns.
Align Top Left	Aligns top left the contents of the selected cells.
Distribute Rows Evenly	Adjusts all the rows in the current selection to the same row height.
Distribute Columns Evenly	Adjusts all the columns in the current selection to the same column width.
Table Auto	Displays the Table Auto Format dialog box.
Change Text Direction	Changes the text orientation.
Sort Ascending	Sorts the contents of the selected cells into ascending order (A to Z).
Sort Descending	Sorts the contents of the selected cells into descending order (Z to A).
Auto Sum	Inserts a formula field into the active cell containing the sum of the cell above or to the left of this cell.

**Table-IV : Drawing Toolbar**


Tools Name	Description
Draw	A pull down menu with several drawing options.
Select Objects	Changes the pointer to a selection arrow.
Free Rotate	Rotates the selected object to any degree.
Auto Shapes	A pull down menu with several libraries of shapes.
Line	Draws a line where you click and drag. Holds the Shift key down to make the line straight.
Arrow	Inserts a line with an arrowhead where you click and drag.
Rectangle	Draws a rectangle where you click and drag. Holds down Shift to draw a square .
Oval	Draws an oval where you click and drag. Holds down Shift to draw a circle .
Text Box	Draws a text box where you click and drag .
Word Art	Creates text effects with Word Art .
Fill Color	Adds, modifies, or removes filled color from a selected object .
Clip Art	
Font Color	Formats the selected text with the color you click..
Line Color	Adds, modifies, or removes line color..
Line Style	Changes the thickness of lines.
Dash Style	Selects dash style for dashed lines.
Arrow Style	Selects arrow style; placement and shape of arrowhead.
Shadow	A pull down menu offers shadow choices.
3-D	Add 3-D effects to rectangles or ovals.

**Footnote and Endnote :** Footnote is a term used to describe additional information found at the bottom of a page and endnote is additional information at the end of the document.

Within Microsoft Word move the cursor to where you want to insert the number that points to the footnote.

1. Select Insert option from Menubar.
2. On the Insert menu, click Footnote.
3. Specify whether or not you wish to insert a Footnote or Endnote and click Ok.

By default, Word places footnotes at the end of each page and endnotes at the end of the document.

**The Ruler :** The ruler is generally found below the main toolbars. The ruler is used to change the format of your document quickly.

## To display the ruler

1. Click View on the Menu bar.
2. The option Ruler should have a check mark next to it. If it has a check mark next to it, press Esc to close the menu. If it does not have a check mark next to it, continue to the next step.
3. Click Ruler. The ruler now appears below the toolbars.

**View a document :** In Word, we can display our document in five views

1. **Normal View :** Normal view is the most often used and shows formatting such as line spacing, font, point size, and italics.
2. **Web Layout :** Web layout view enables us to view our document as it would appear in a browser such as Internet Explorer.
3. **Print Layout :** The Print Layout view shows the document as it will look when it is printed. It is also called page layout.
4. **Reading Layout :** Reading Layout view formats our screen to make reading our document more comfortable.
5. **Outline view :** Outline view displays the document in outline form. Headings can be displayed without the text. If we move a heading, the accompanying text moves with it.

**Text area :** Text area is a large area at just below the ruler. We type document in the text area. The blinking vertical line in the text is the cursor which shows our position. It marks the insertion point of text. As we start type, our work shows at the cursor location.

**Meaning of different colors underlines in document :** If text on our document is underlined, without applying underline formatting to it, it could be of the following reasons.

1. **Red and green wavy underlines :** When we automatically check spelling and grammar, Microsoft Word uses wavy red underlines to indicate possible spelling errors and wavy green underlines to indicate possible grammatical errors.

2. **Blue wavy underlines :** Word uses wavy blue underlines to indicate possible instances of inconsistent formatting.

3. **Blue or other color underlines :** Hyperlink display text is blue and underlined by default.

**Word wrap :** Word wrap is the additional feature of most text editors, word processors and web browsers of breaking lines between and not within words, except when a single word is longer than a line.

**Exit from MS-Word :** When we have completed and saved our work we exit from MS-Word. To exit from Word

1. Select File option from Menubar.
2. Click on the Exit in pull-down menu.

If we have typed any text, we will be prompted : "Do you want to save your changes" To save our changes, click Yes. Otherwise, click No.

1. Specify the correct folder in the Save In box.
2. Name our file in the File Name field.
3. Click Save.

**Microsoft Excel :** Microsoft Excel is an electronic spreadsheet. It is a tool for numeric and statistical calculation, evaluation, analysis, and it also offers capabilities for creating charts, reports and presentations to communicate what analysis reveals. It is used by people to perform quick numeric calculations, store and analysis data periodically, for preparing financial statements and tax worksheet. A program that works like a calculator for keeping track of money and making budgets. It is a program that works like a calculator for keeping track of money and making budgets. It is a utility software package.

Microsoft Excel is a logical worksheet consisting of cells organised into rows and columns. A cell is the intersection of a row and a column. In which we can enter a single piece of data. The data is usually text, a numeric value, or a formula. The entire spreadsheet is composed of rows and columns of cells.

Each row and column creates a unique cell. Each cell refers to a cell reference, or cell address, that is the row and column label of cells. cell address is a unique co-ordinate system used to identify a specific cell. Cell address contains first column then row's name. They identified by a column letter and a row number of a cell, such as C4 or D8. Each cell is displayed on the screen as a rectangular shape which can store text, value, or a formula. Once formula is specified, calculations are done automatically and the results are displayed for the user to see. Often text is left align in column, we can change it according to our need. A workbook is the MS Excel file in which we enter and store related data in worksheet. A worksheet is also known as a spreadsheet, that is a collection of cells on a single "sheet" where we actually keep and manipulate the data. Each workbook can contain many worksheets.

There are some examples of electronic spreadsheets

1. Lotus 1-2-3
2. Quartpro
3. VPP
4. MS-Excel

**To open or start Microsoft Excel :** There are two methods to open or start Microsoft Word.

1. Double click on Microsoft Excel icon on desktop.
2. Click on the Start button in the bottom left hand corner of computer screen.
3. When the menu pops up, move our mouse up to Programs. A sub menu will appear showing all the software we have.
4. Now click Microsoft Office then select Microsoft Excel from them. Microsoft Excel will start up.

Click Start → Program → MS-Office → MS-Excel.

### Creating Formula

1. Start Microsoft Excel and open the file.
2. Double-click on the cell where you want to insert the formula.
3. Type = key on the keyboard. This tells Excel that we are entering a formula into the cell. 
4. Enter the formula, then press Enter to accept the formula.
5. We can also enter a formula into a range of cells by copying a formula from another cell.

**Adding borders to a cell :** To add borders to cells, follow these steps

1. Select the cell or range of cells that we want bordered.
2. Select the Cells option from the Format menu. We will get the Format Cells dialog box.
3. Click on the Border tab.
4. In the Border section of the dialog box, select where you want the border applied. (Outline will surround the entire cell or cell range.)
5. Select a line type from the Style area.
6. Click on OK.

**Adding shading to a cell :** To add shading to cells, follow these steps

1. Select the cells or ranges of cells that we want to apply shading.
2. To fill cells with a solid color, click the arrow next to Fill Color on the Formatting toolbar and then click the color that you want on the palette.
3. To apply the most recently selected color, click Fill Color.
4. To fill cells with a pattern, click Cells on the Format menu. On the Patterns tab, under Cell shading, click the background color that you want to use for the pattern. Then click the arrow next to the Pattern box, and click the pattern style and pattern color.

**Inserting a chart in Spreadsheet :** Charts are used to display series of numeric data in a graphical format to make it easier to understand large quantities of data. To create a chart in Excel, you start by entering the numeric data for the chart on a worksheet.

1. On the worksheet, arrange the data that you want to plot in a chart. The data can be arranged in rows or columns.
2. Select the cells that contain the data that you want to use for the chart.
3. Click on the Insert, then click the chart option in drop-down menu. Chart Wizard will appear on computer.
4. Chart Wizard is now asking for Chart Type, Data Range etc.
5. After selecting and updating in Chart Wizard, click finish.

**Microsoft Power point :** Microsoft Power point is a part of MS- Office. It was introduced to generate business presentation, slide show and graphics on computer system.

**Use of Power point**

1. Creating business application presentation slide.
2. Creating graphical objects with animations.
3. Create artistic slides for general use using art gallery.
4. To provide training in business world.

**Starting Power point :** There are two methods to open or start Power point.

1. Double click on Microsoft Power point icon on desktop.
2. Click on the Start button in the bottom left hand corner of computer screen.

3. When the menu pops up, move our mouse up to Programs. A sub menu will appear showing all the software we have.
4. Now click Microsoft office then select Microsoft Power point from them. Microsoft Power point will start up.  
Click Start → Program → MS-Office → MS. Power point.

### **The Power Point Screen**

We use Power Point to create effective slide show presentations. The power point screen has many elements.

1. **Title Bar** : The title bar generally appears at the top of the screen. The title bar displays the title of the current presentation.
2. **Menu Bar** : The menu bar displays the menu. You use the menu to give instructions to Power Point.
3. **Standard and Formatting Toolbars** : Power Point has several toolbars. Toolbars provide shorcuts to menu commands. The most commonly used toolbars are the standard and formatting toolbars. You use the standard toolbar to do such things as open a file; save a file; print a file; check spelling; cut, copy, and paste; undo and redo; or insert a chart or table. You use the formatting toolbar to change the font, font size or font color; bold, underline or italicize text; left align, right align, center, or justify, bullet or number lists; highlight; or decrease or increase the indent.
4. **Rulers** : Rulers are vertical and horizontal guides. You use them to determine where you want to place an object. They are marked in inches.
5. **Placeholders** : Placeholders hold the objects in your slide. You use placehoders to hold text, clip art, and charts.
6. **Status Bar** : The Status bar generally appears at the bottom the screen. The Status bar displays the number of the slide that is currently displayed, the total number of slides, and the name of the design template in use or the name of the background.
7. **Outline Tab** : The Outline displays the text contained in your presentation.
8. **Slides Tab** : The Slides tab displays a thumbnail of all your slides. You click the thumbnail to view the slide in the slide pane.
9. **View Buttons** : The view buttons appear near the bottom of the screen. You use the view buttons to change between Normal view. Slider sorter view, and the Slide Show.
10. **Drawing Toolbar** : The drawing toolbar generally appears near the bottom of the screen. It contains tools for creating and editing graphics.
11. **Common Tasks Buttons** : Using the common tasks buttons, you can select the type of tasks you want to perform.
12. **Task Pane** : The task pane enables you to select the specific task you want to perform.
13. **Vertical Splitter Bar** : You can click and drag the vertical splitter bar to change the size of your panes.
14. **Minimize Button** : You use the minimize button to remove a window from view. While a window is minimized, its title appears on the taskbar.

**15. Maximize/Restore Button :** You use the maximize button to cause a window to fill the screen. After you maximize a window, if you click the restore button, the window returns to its former size.

**16. Close Button :** You use the close button to exit the window and close the program.

### Create a new presentation

We can create a new presentation in many ways. It will cover everything from creating a simple blank presentation to one that is created from our favorite photograph.

**1. Auto Content Wizard :** It creates new presentation by providing information about title, subject, style and output. It will help to create presentations quickly by asking a number of questions about what users want and then create a presentation based on answers. A user can modify the contents of the presentation according to his needs once he has finished.

**2. Design Template :** It is created so that different slide types can have different layouts and graphics, the whole presentation goes together as an attractive package. It creates new presentation based on provided power point design template.

**3. Blank presentation :** It is displayed as blank presentation to create own design. It starts with a blank presentation with all values for color scheme, fonts and other design features set to default value. After selecting blank presentation a user selects layout from layouts window.

These layouts are of different types

- |                       |                         |                   |
|-----------------------|-------------------------|-------------------|
| 1. Blank slide        | 2. Title slide          | 3. Bulleted list  |
| 4. Two column text    | 5. Table                | 6. Text and chart |
| 7. Chart and text     | 8. Organisational chart | 9. Chart          |
| 10. Text and clip art | 11. Clip art and text   | 12. Title only    |

**To save a presentation :** When we create a presentation, it needs to save. So to save a presentation.

1. Select File option from Menubar, click Save.
2. Select the location or drive to store a presentation and enter a name in the File name box.
3. Click Save.

To save a presentation into new location with new name we use 'Save as' option in File option from menu-bar.

**Different Ways to View Slides :** Slides in any power point presentation can be viewed in a variety of ways depending on the task.

### Normal View

Normal view splits your screen into three major sections : The outline and slides tabs, the slide pane, and the task pane. The outline and slides tabs are on the left side of your screen. They enable you to shift between two different ways of viewing your slides. The slides tab shows thumbnails of your slides. The outline tab shows the text on your slides. The slide pane is located in the center of your screen. The slide pane shows a large view of the slide on which you are currently working. The task pane is located on the right side of your screen. The tasks pane enables you to select the task you want to perform.

### Slide Sorter View

Slide sorter view enables you to view thumbnails of all your slides. In slide sorter view you can easily add, delete, or change the order of your slides. When you are in slide sorter view, a special formatting toolbar appears. It has options that allow you to make changes to your slides.

### Slide Show

Use the slide show view when you want to view your slides, as they will look in your final presentation. When in Slide Show view.

Esc                    Returns you to the view you were using previously.

Left-clicking      Moves you to the next slide or animation effect. When you reach the last slide, you automatically return to your last view.

Right-clicking     Opens a pop-up menu. You can use this menu to navigate the slides, add speaker notes, select a pointer and mark your presentation.

### Adding Notes in Power Point

There are two ways to insert notes in Power Point

1. To insert short notes : In the normal view, click on the notes box at the bottom of our screen and type our text.

2. To insert longer notes : Click on the view tab. Under presentation views select the notes page button. Type our notes in the space that appears below our slide.

### Inserting Headers & Footers

Headers and/or footers are used on Power point slide to include important information about the slides. This can be information for the presenter or audience, such as the date this presentation was created or delivered, to brand the slides with your company name or simply to automatically place a slide number on each slide. To add a header and footer, click on the insert tab, then on the Header & Footer button. The date and time and slide number buttons will bring up the same dialog box.

1. Fixed and Automatic dates : Power Point gives the option to add either a fixed date and time, which will remain the same, or a date and time that automatically update. If we choose to have a date and time that automatically update, the date and time will always match the data and time that we run our slide show.

2. Slide Number : Check this box to show the slide number.

3. Footer : Check the Footer box and add text to have text appear at the bottom of the slide.

4. Apply / Apply to All : To insert our chosen elements into our slide, select apply to have the information appear only on our current slide, or Apply to all to have it appear on every slide. If any of the information is repeated on the title slide, check the Don't show on title slide box to avoid repeating the information.

5. Preview : The Preview box shows us where on our slide the information will appear. We can not change this from within this screen, but once we insert the information we can click and drag the box anywhere in our slide, just like any other text box.

6. Notes and Handouts : Under this tab, we can choose our header and footer preferences for our handouts.

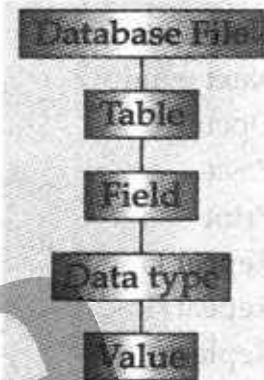
**Power Point Shortcut Key**

Action	Power Point shortcut
Bold	Ctrl-B
Close	Ctrl-W
Close	Ctrl-F4
Copy	Ctrl-C
Find	Ctrl-F
Italics	Ctrl-I
Menu bar	F10
New slide	Ctrl-N
Next window	Ctrl-F6
Open	Ctrl-O
Paste	Ctrl-V
Print	Ctrl-P
Repeat Find	Shift-F4
Repeat/Redo	Ctrl-Y
Replace	Ctrl-H
Save	Ctrl-S
Slide Show : Begin	F5
Slide Show : Black screen show/hide	B
Slide Show : End	Esc
Slide Show : Erase annotations	E
Slide Show : Go to next hidden slide	H
Slide Show : Hide pointer and button always	Ctrl-L
Slide Show : Hide pointer and button temporarily	Ctrl-H
Slide Show : Mouse Pointer to arrow	Ctrl-A
Slide Show : Mouse pointer to pen	Ctrl-P
Slide Show : Next slide	N
Slide Show : Previous slide	P
Slide Show : Set new timings while rehearsing	T
Slide Show : Stop / restart automatic slide show	S
Slide Show : Use mouse-click to advance (rehearsing)	M
Slide Show : Use original timings	O
Slide Show : White screen show/hide	W
Spelling and Grammer Check	F7
Switch to the next presentation window	Ctrl-F6
Switch to the next tab in a dialog box	Ctrl-Tab / Ctrl-Page Down
Switch to the previous presentation window	Ctrl-Shift-F6
Switch to the previous tab in a dialog box	Ctrl-Shift-Tab / Ctrl-page Up
Turn character formatting on or of	Num/
Underline	Ctrl-U
Undo	Ctrl-Z

**Microsoft Access :** Microsoft Access is a relational DBMS (Database Management System). It handles data management tasks. Microsoft Access allows users to manipulate large amounts of information and retrieve any part of the information. It is a structured database containing data tables that are arranged in a uniform structure of records and fields. A spreadsheet is a table used by small organisations that operates with a limited amount of data but for big organisations a Database Management System is preferred because it needs storing huge amount of data and retrieves it much faster. In database management system the content and the location of the data is defined by meta data.

### **Terms related to Microsoft Access**

**Database File :** A database is a collection of related information that is organized so that it can easily be accessed, managed and updated. We organize files by storing them in folders. The process of arranging data in logical sequence is called sorting. It is an integrated collection of logically-related records that provide data for one or more multiple uses. We can also perform operations on the data that is in a database. For example, retrieve data and modify data. Periodically reviewing and altering the records in a file to ensure that the information they contain is accurate and up-to-date. We can use a database as a computerized record-keeping system that maintains information and that makes the information available when we want the information. For example addresses of employees in an organisation or maintain details of students etc.



**File updating :** In computing, reviewing and altering the records in a file to ensure that the information they contain is accurate and up-to-date. Three basic processes are involved: adding new records, deleting existing records, and amending existing records. The updating of a file is a continuous process because records can be accessed individually and changed at any time. This type of updating is typical of large interactive database systems, such as airline ticket-booking systems. Each time a ticket is booked, files are immediately updated so that double booking is impossible.

In large commercial applications, however, millions of customer records may be kept in a large sequentially ordered file, called the master file. Each time the records in the master file are to be updated such as, when quarterly bills are being drawn up, a transaction file must be prepared. This will contain all the additions, deletions, and amendments required to update the master file. The transaction file is sorted into the same order as the master file, and then the computer reads both files and produces a new updated master file, which will be stored until the next file updating take place.

**Database engine :** A database engine is a part of a DBMS. It provides a link between the DBMS and the physical data on the hard disk.

**Data dictionary :** The data dictionary contains data about data or list of data files. It means that it contains the actual database descriptions used by the DBMS, no original data. In most DBMS, the data dictionary is active and integrated. It means that the DBMS checks the data dictionary every time the database is accessed.

**Directory :** It is a hierarchical structure used to organize folders and files. It has information about files. It is a virtual container in which groups of computer files and other folders can be kept and organized. The topmost or main directory in any file is called the root directory. A directory that is below another directory is called a sub directory. A directory above a subdirectory is called the parent directory.

**Table :** A table is a collection of data about a specific topic that is stored in rows and columns or in relational database a table is a data structure that is organized using a structure of columns and rows. A table has a specified number of columns, but can have any number of rows. When we create a new table, Access asks to define fields, giving each a unique name and data type. In one database there can be multiple tables.

**Field :** A space allocated for a particular item of information is field. A field is a column in a table. SQL Server supports more fields, but only 255 fields are visible in Access. The definition of a field includes the name of the field, the type of data that is stored in the field, and any validation rules that you must have to validate the stored data. For example a tax form, contains a number of fields such as name, address, income and so on. In database systems, fields are the smallest units of information. In spreadsheets, fields are called cells.

**Record :** In database management systems, a record is a row in a table. We may store any number of records in a table. Records are composed of fields, each of which contains one item of information. A set of records makes a file. For example, a personnel file contains records that have fields such as name, address and a phone number etc.

**Data type :** A data type determines the type of data that the field can store. After naming a field, we must decide what type of data the field will hold. Before you begin entering data, you should decide the data types that our system would use such as in any database numeric field can store numbers used to perform calculations. Data type can be Text, Memo, Numeric, Date/ Time, Currency, Auto-Number etc.

**Forms :** Forms are screens for displaying data from and inputting data into tables. In Access, we can use a form as the graphical user interface to data. Forms do not store any data but they fetch data from tables or from queries and then present this data for us. We can use a form to insert data in a table, to modify the existing data in a table, or to delete data from a table.

**Reports :** Reports are output. Anything we decide to print deserves a report, whether it is a list of names and addresses, a financial summary for a period, or a set of mailing labels. Access Wizards allow us go through the process of defining reports. A report presents the data from a table or from a query in a pre-formatted and useful manner. You can control the appearance of a report. Reports can use controls to improve the graphical representation of data and to make the reports more useful.

**Page :** We use pages to enter or display data via Internet. Pages are stored as HTML files, with data read from and written to the database.

**Macros :** An Access Macro is a script for doing some job. For example, to create a button which opens a report, you could use a macro which fires off the "Open Report" action. Macros can also be used to set one field based on the value of another. Each line of a macro performs some action, and the

bottom half of the macro screen provides the details of how the action is to apply.

**Primary Key :** Primary key is a field or group of fields that uniquely identify records in a table. Every table can have only one primary key. Primary key cannot be null value, it always has unique value. Primary key is used to relate one table to another as a foreign key.

**Foreign key :** Foreign key is a key in a table that refers to primary key field in another table.

**Relationship :** A relationship is a link that is created between two tables and enables us to accessed data from both tables simultaneously. A relationship is an association between access tables or queries that use related fields. It can be one-to-one, one-to-many, many-to-one, or many-to-many.

### ■ ■ ■ Objective Question ■ ■ ■

1. You can use .... to copy selected text; and .... to paste it in a document.
 

(a) <b>CTRL + C, CTRL + V</b>	(b) <b>CTRL + C, CTRL + P</b>
(c) <b>CTRL + S, CTRL + S</b>	(d) <b>SHIFT + C, ALT + P</b>
(e) <b>CTRL + D, CTRL + A</b>	
2. Numbers in table columns are usually .....
 

(a) right-aligned	(b) left-aligned	(c) justified
(d) centered	(e) None of these	
3. Each box in a spreadsheet is called a .....
 

(a) cell	(b) empty space	(c) record
(d) field	(e) table	
4. A collection of related files is called .....
 

(a) Character	(b) Field	(c) Data base
(d) Record	(e) None of these	
5. When a file is saved for the first time .....
 

(a) a copy is automatically printed
(b) file name and folder name must be the same
(c) it does not need a name
(d) it only needs a name if it is not going to be printed
(e) it must be given a name to identify it
6. In which group do we work at the time of text formatting in word ?
 

(a) Table, Paragraph and Indexes
(b) Paragraph, Indexes and Sections
(c) Characters, sections and paragraphs
(d) Indexes, Characters and Tables
(e) None of these
7. The letter and number of the intersecting column and row is the—
 

(a) Cell location	(b) Cell position	(c) Cell address
(d) Cell coordinates	(e) Cell contents	
8. To save an existing file with new name at new location we should use ..... command.
 

(a) Save	(b) Save and replace	(c) Save as
(d) New file	(e) None of these	

9. Forms that are used to organize business data into rows and columns are called .....
- (a) Transaction sheets (b) Registers (c) Business forms  
(d) Sheet-spreads (e) Spreadsheets
10. In power point, the Header & Footer button can be found on the insert tab in what group ?
- (a) Illustrations group (b) Object group (c) Text group  
(d) Tables group (e) None of these
11. The PC productivity tool that manipulates data organized in rows and columns is called a .....
- (a) Spreadsheet (b) Word processing document  
(c) Presentation mechanism (d) Database record manager  
(e) EDI creator
12. Which Powerpoint view displays each slide of the presentation as a thumbnail and is useful for rearranging slides ?
- (a) Slide Sorter (b) Slide Show (c) Slide master  
(d) Notes Page (e) Slide Design
13. If a previously saved file is edited .....
- (a) it cannot be saved again  
(b) the changes will automatically be saved in the file  
(c) the file will only have to be saved again if it is more than one page in length  
(d) its name must be changed  
(e) the file must be saved again to store the changes
14. To print a document .....
- (a) select the Print command and then select OK  
(b) select the Ready Printer command then select OK  
(c) type Print and then press Enter  
(d) close the document, select the Print command, then select OK  
(e) None of these
15. Which option is correct to enter the charts in ms excel—
- (a) Formulas>>charts (b) Data>>charts  
(c) Insert menu>>charts (d) View>>charts
16. A ..... is a collection of information saved as a unit.
- (a) folder (b) file (c) path  
(d) file extension (e) None of these
17. What is a list of data files of any database called ?
- (a) Data diary (b) Data list (c) Data disc  
(d) Data dictionary (e) None of these
18. What is the overall term for creating, editing, formatting, storing, retrieving and printing a text document ?
- (a) Word processing (b) Spreadsheet design (c) Web design  
(d) Database management  
(e) Presentation generation
19. What is the main folder on a storage device called ?
- (a) Root directory (b) Interface (c) Device driver  
(d) Platform (e) Main directory
20. A file is often referred to as a (n) .....
- (a) Wizard (b) Document (c) Pane  
(d) Device (e) Documentation

- 21.** Excel workbook is a collection of ..... .  
 (a) Chart (b) Word book (c) Worksheet  
 (d) a and c (e) None of these
- 22.** Microsoft Office is an example of a ..... .  
 (a) closed source software (b) open source software  
 (c) horizontal market software (d) vertical market software  
 (e) compiler
- 23.** Which of the following is not related to text formatting ?  
 (a) Line spacing (b) Text spacing (c) Margin change  
 (d) Searching (e) None of these
- 24.** To correct the spelling in Ms-Word we use ..... .  
 (a) Spellpro (b) Spellcheck (c) Outlook Express  
 (d) All of These (e) None of these
- 25.** In a spreadsheet program the ..... contains related worksheets and documents.  
 (a) Workbook (b) Column (c) Call  
 (d) Formula (e) None of these
- 26.** Which one of the following software applications would be the most appropriate for performing numerical and statistical calculations ?  
 (a) Data base (b) Document processor  
 (c) Graphics package (d) Spreadsheet  
 (e) None of these
- 27.** The word wrap feature—  
 (a) Automatically moves the text to next line when necessary  
 (b) Appears at the bottom of the document  
 (c) Allows you to type over text  
 (d) Is the short horizontal line indicating the end of the document
- 28.** The background of any word document ..... .  
 (a) is always white colour  
 (b) is the colour you preset under the option menu  
 (c) is always the same for the entire document  
 (d) Can have any colour you choose  
 (e) None of these
- 29.** What is a default file extension for all word documents ?  
 (a) TXT (b) WRD (c) FIL  
 (d) DOC (e) None of these
- 30.** Text in a column is generally aligned ..... .  
 (a) Justified (b) Right (c) Center  
 (d) Left (e) None of these
- 31.** A directory within a directory is called ..... .  
 (a) Mini directory (b) Junior directory (c) Part directory  
 (d) Sub directory (e) None of these
- 32.** For opening and closing of a file in excel, you can use which bar ?  
 (a) Formatting (b) Standard (c) Title  
 (d) Formatting or Title (e) None of these
- 33.** You click at B to make the text ..... .  
 (a) Italics (b) Underlined  
 (c) Italics and under lined (d) Bold  
 (e) None of these

- 34.** For creating a document, you use ..... command at file menu.  
(a) Open (b) Close (c) New  
(d) Save (e) None of these
- 35.** You can start Microsoft word by using ..... button.  
(a) New (b) Start (c) Program  
(d) Control panel (e) None of these
- 36.** In excel, charts are created using which option ?  
(a) Chart wizard (b) Pivot table (c) Pie chart  
(d) Bar chart (e) None of these
- 37.** In page preview mode .....  
(a) You can see all pages of your document.  
(b) You can only see the page you are currently working on.  
(c) You can only see pages that do not contain graphics.  
(d) You can only see the title page of your document.  
(e) None of these
- 38.** File extensions are used in order to .....  
(a) Name the file (b) Identify the file  
(c) Answer the file name is not last  
(d) Identify the file type (e) None of these
- 39.** Which one of the following software applications would be the most appropriate for performing numerical and statistical calculations ?  
(a) Database (b) Document processor  
(c) Graphic package (d) Spreadsheet  
(e) None of these
- 40.** Which elements of a word document can be displayed in colour ?  
(a) Only graphics (b) Only text (c) All elements  
(d) All elements, but only if you have a colour printer  
(e) None of these
- 41.** Which keyboard shortcut bolds selected text ?  
(a) Ctrl + B (b) Alt + B (c) File / format / bold  
(d) These all (e) None of these
- 42.** A collection of related information sorted and dealt with as a unit is a  
(a) Disk (b) Data (c) File  
(d) Floppy (e) None of these
- 43.** MS-Word is an example of—  
(a) An operating system (b) A processing device  
(c) Application software (d) An input device  
(e) None of these
- 44.** The blinking point which shows your position in the text is called—  
(a) Blinker (b) Cursor (c) Causer  
(d) Pointer (e) None of these
- 45.** Which application is commonly used to prepare a presentation / slide show?  
(a) Photoshop (b) Power point (c) Outlook Express  
(d) Internet explorer (e) None of these
- 46.** The quickest and easiest way in word, to locate a particular word or phrase in a document is to use the command.



- (d) The names are capitalized differently.  
(e) None of these
60. Meaningful filename helps in easy file .....  
(a) Storing (b) Accessing (c) Identification  
(d) Printing (e) None of these
61. A program that enables you to perform calculations involving rows and columns of numbers is called a .....  
(a) Spreadsheet program (b) Word processor  
(c) Graphics package (d) Window  
(e) None of these
62. To ..... a document means to make changes to its existing content.  
(a) Format (b) Save (c) Edit  
(d) Print (e) None of these
63. Periodically adding, changing and deleting file records is called file .....  
(a) Updating (b) Upgrading (c) Restructuring  
(d) Renewing (e) None of these
64. How do you save a presentation under a new file name ?  
(a) Select the file menu and choose save as  
(b) When you close power point the file will automatically be saved  
(c) Select the file menu and choose save  
(d) The file will automatically be saved under the new name if you change the title  
(e) None of these
65. Saving is the process of .....  
(a) copying a document from memory to a storage medium  
(b) making changes to a document's existing content  
(c) changing the appearance, or overall look, of a document  
(d) developing a document by entering text using a keyboard  
(e) none of these
66. When computer users ..... a document, they change its appearance.  
(a) Edit (b) Create (c) Save  
(d) Format (e) None of these
67. What menu is selected to print ?  
(a) File (b) Tools (c) Special  
(d) Edit (e) None of these
68. A saved document is referred to as a .....  
(a) File (b) Word (c) Folder  
(d) Project (e) None of these
69. A command that takes what has been typed into the computer and can be seen on the screen and sends it to the printer for output on paper .....  
(a) Print (b) Return (c) Jump  
(d) Attention (e) None of these
70. To find a saved document in the computer's memory and bring it up on the screen to view .....  
(a) Reverse (b) Rerun (c) Retrieve  
(d) Return (e) None of these

71. Allows you to print .....  
(a) Ribbon (b) Monitor (c) Go now  
(d) Control-P (e) None of these

72. The different styles of lettering in a word processing program ....  
(a) Font (b) Calligraphy (c) Writing  
(d) Manuscript (e) None of these

73. To change written work already done .....  
(a) File (b) Edit (c) Cut  
(d) Close (e) None of these

74. To exit the program without leaving the application .....  
(a) File (b) Edit (c) Copy  
(d) Cart away (e) None of these

75. A command that saves what you are working on into the hard drive, or onto a disk .....  
(a) View (b) Hold (c) Save  
(d) Go (e) None of these

76. A command to get a file you worked on from the memory where it was stored .....  
(a) Close (b) Delete (c) Open  
(d) Get it (e) None of these

77. A program that works like a calculator for keeping track of money and making budgets .....  
(a) Calculator (b) Spreadsheet (c) Budgeter  
(d) Financier (e) None of these

78. What menu is selected to save or save as ?  
(a) Tools (b) File (c) Format  
(d) Edit (e) None of these

79. A ..... includes the file name and possibly a directory of folder  
(a) File information packet (b) File button  
(c) File directory (d) File specification  
(e) None of these

80. To print a document, press ..... then press Enter.  
(a) Shift + P (b) Ctrl + P (c) Alt + P  
(d) Esc + p (e) None of these

81. A(n) ..... in text that you want printed at the bottom of the page.  
(a) Header (b) Endonte (c) Footnote  
(d) Footer (e) None of these

82. What menu is selected to change font and style ?  
(a) Tools (b) File (c) Format  
(d) Edit (e) None of these

83. Items such as names and addresses are considered .....  
(a) information (b) input (c) records  
(d) data (e) None of these

84. A telephone number, a birth date, and a customer name are all examples of .....  
(a) a record (b) data (c) a all  
(d) a database (e) None of these



## Answers

- |         |          |          |          |          |          |         |
|---------|----------|----------|----------|----------|----------|---------|
| 1. (a)  | 2. (a)   | 3. (a)   | 4. (c)   | 5. (e)   | 6. (a)   | 7. (c)  |
| 8. (c)  | 9. (e)   | 10. (c)  | 11. (a)  | 12. (a)  | 13. (e)  | 14. (a) |
| 15. (c) | 16. (b)  | 17. (d)  | 18. (a)  | 19. (a)  | 20. (b)  | 21. (c) |
| 22. (c) | 23. (d)  | 24. (b)  | 25. (a)  | 26. (d)  | 27. (a)  | 28. (d) |
| 29. (d) | 30. (d)  | 31. (d)  | 32. (b)  | 33. (d)  | 34. (c)  | 35. (b) |
| 36. (a) | 37. (a)  | 38. (d)  | 39. (d)  | 40. (c)  | 41. (a)  | 42. (c) |
| 43. (c) | 44. (b)  | 45. (b)  | 46. (b)  | 47. (c)  | 48. (b)  | 49. (c) |
| 50. (a) | 51. (d)  | 52. (d)  | 53. (c)  | 54. (a)  | 55. (b)  | 56. (c) |
| 57. (c) | 58. (c)  | 59. (a)  | 60. (c)  | 61. (a)  | 62. (c)  | 63. (a) |
| 64. (a) | 65. (a)  | 66. (d)  | 67. (a)  | 68. (a)  | 69. (a)  | 70. (c) |
| 71. ()  | 72. (a)  | 73. (b)  | 74. (d)  | 75. (c)  | 76. (c)  | 77. (b) |
| 78. (b) | 79. (c)  | 80. (b)  | 81. (d)  | 82. (c)  | 83. (c)  | 84. (d) |
| 85. (c) | 86. (b)  | 87. (b)  | 88. (d)  | 89. (a)  | 90. (a)  | 91. (c) |
| 92. (a) | 93. (d)  | 94. (b)  | 95. (b)  | 96. (b)  | 97. (b)  | 98. (c) |
| 99. (b) | 100. (d) | 101. (d) | 102. (b) | 103. (a) | 104. (a) |         |

☆☆☆

# Abbreviation Related to Computer

ADC : Analog Digital Converter

AI : Artificial Intelligence

ALGOL : Algorithmic Language

ALU : Arithmetic Logic Unit

ASCII : American Standard Code for Information Interchange

ATM : Automated Teller Machine

BARC : The Bhabha Atomic Research Centre

BASIC : Beginner's All-purpose Symbolic Instruction Code

BIOS : Basic Input output System

BSNL : Bharat Sanchar Nigam Limited

CAD : Computer Aided Design

CAM : Computer Aided Manufacturing

CD : Compact Disc

CD ROM : Compact Disc Read Only Memory

CD RW : Compact Disc Read and Write

COBOL : Common Business Oriented Language

CPU : Central Processing Unit

CRT : Cathode Ray Tube

CU : Control Unit

D RAM : Dynamic RAM

DAC : Digital Analog Converter

DBMS : Database Management System

DCL : Digital Command Language

DFD : Data Flow Diagram

DNS : Domain Name System

DPI : Dots Per Inch

DRDO : The Defence Research and Development Organisation

DVD : Digital Versatile Disc or Digital Video Disc

E Mail : Electronic Mail

E-Commerce : Electronic Commerce

E-PROM : Erasable Programmable Read Only Memory

EBCDIC : Extended Binary Coded Decimal Interchange Code

EDP : Electronic Data Processing

EDSAC : Electronic Delay Storage Automatic Calculator

EE-PROM : Electrically Erasable Programmable Read Only Memory

ENIAC : Electronic Numerical Integrated and Computer

FORTRAN : Formula Translation

FTP : File Transfer Protocol

GUI : Graphical User Interface

HTML : Hyper Text Markup Language

HTTP : Hyper Text Transfer Protocol

IBM : International Business Machine

ISDN : Integrated Services Digital Network

IT : Information Technology  
KBPS : Kilo Byte Per Second  
LAN : Local Area Network  
LCD : Liquid Crystal Display  
LSI : Large Scale Integration  
MAN : Metropolitan Area Network  
MB : Mega Byte  
MICR : Magnetic Ink Character Reader  
MODEM : Modulator – Demodulator  
MS-ACCESS : Microsoft Access  
MS-DOS : Microsoft-Disc Operating System  
MS-EXCEL : Microsoft-Excel  
MS-WINDOS : Microsoft-Windows  
MS-WORD : Microsoft -Word  
MTNL : Mahanagar Telephone Nigam Limited  
NAL : National Aerospace Laboratories  
NIC : Network Interface Card  
OCR : Optical Character Reader  
OMR : Optical Mark Reader  
OS : Operating System  
PC : Personal Computer  
PDL : Program Design Language  
PL 1 : Programming Language 1  
POS : Point of Sales  
PROM : Programmable Read Only Memory  
PSTN : Public Switched telephone Network  
RAM : Random Access Memory  
ROM : Read Only Memory  
RPG : Report Program Generator  
S RAM : Static Ram  
SCSI Port : Small Computer System Interface Port  
TCP/IP : Transmission Control Protocol/Internet Protocol  
TFT : Thin- Film Transistor  
ULSI : Ultra Large Scale Integration  
UPS : Uninterruptible Power Supply  
URL : Uniform Resource Locator  
USB : Universal Serial Bus  
VDU : Visual Display Unit  
VLSI : Very Large Scale Integration  
VSNL : Videsh Sanchar Nigam Limited  
WAN : Wide Area Network  
WIMAX : Worldwide Interoperability for Microwave Access  
WLL : Wireless Local Loop  
WORM : Write Once Read Many  
WWW : World Wide Web

★★★