

DEVELOPMENT TECHNICAL INSTITUTE – IT TOOLS & BUSINESS SYSTEM

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Chapter 1st – Introduction to computer

Q. What is computer? Define the types of computer?

- A computer is an electronic device. It is versatile machine. A computer can not only store and process data but also it retrieve data as and when desire. A computer word comes from compute which means calculation. A Computer is a general purpose machine that manipulates of raw facts according to set of instruction that are fed into it.

Types of compute

Mostly there are two types of computer:-

1. **Analog computer:** - are use handle or process information which is of a physical nature, as for example Temperature, pressure etc.
2. **Digital computer:** -are used to process information which is essentially in a binary or two – state form, namely Zero and One. When talking about computer, we mostly refer to the digital type of electronic machine

On the basis size, Digital computers are categorized at four categories:

1. **Micro Computer:** - the processor is very small so that called micro processor and device is called microcomputer. Microcomputer is single user device . Example desktop, laptop, palmtop, notebook, PDA etc.
 2. **Mini Computer:** - the processor of minicomputer is small but larger than micro processor. Minicomputer is multiuser device generally used in designing company for commercial use.
 3. **Mainframe Computer:** - it has larger processor and multiuser device. Number of users is more than minicomputer. this is multiuser and multitasking device mostly used in metrology
 4. **Super computer:** - the processor is biggest than other computer and processing capacity is highest than other devices. It is multi user fastest calculating device, generally used in nuclear science for calculation purpose. Cray – 1 is the first super computer. India’s first super computer is PARAM -10000.
3. **Hybrid Computer :-** it is the combination (mixed) of digital and analog computer
 4. **Handheld computer:** - Handheld or mobile computing devices are small, compact and portable device used typically by those people who work in a mobile environment. Such as delivery services, utility company, salesmen and travelling businessman. laptop, palmtop, notebook, PDA etc

Generation of computer:

1. First Generation Computer (1946-1958):

in this generation computer size was very large and use technology of vacuum tube electrical balv , hence It had become hot very shortly.

2. **Second Generation computer (1958-1964)** : in this generation use of small transistors . in this generation used of tape and Mash Disk instead of punch card . so the speed of computer had become very fast .
3. **Third Generation Computer(1964-1970)**: in the third generation computer size has become small and speed fast due to develop electronics. IBM has introduced IC (integrated Circuit) and use of this in Office. Magnetic type and Disk storage has growth by using RAM. in third generation we found the software and hardware separately.
4. **Fourth Generation computer(1970-1985)** : in this generation used of MICRO processor and size has become very small and speed very fast. Introduced use of graphical user interface so computer use has become very easy.
5. **Fifth Generation computer (1985- till date)** in this generation found technology of artificial intelligence . so we can take decision on computer .

Characteristic of Computer

1. Never Tired & Board
2. High Speed
3. Accuracy
4. Storage Capacity
5. Diversity
6. Reliable (trust worthy)
7. All in all

The Main Components Of A Digital Computer Are:

- ✚ Central processing unit(CPU)
- ✚ Input and output devices
- ✚ Computer memory
- ✚ Concepts of hardware and software

Central processing unit (CPU):

CPU is the brain of computer. Its primary job is to run program and control the operation of all other components such as memory, keyboard and printer. Under the CPU's control, programs and data stored in the memory and results are displayed on the monitor or printed on paper.

Central processing unit (CPU) also called microprocessor. it is a small chip in computers which receive input and provide output. It is composed of silicon and contains millions of transistors for e.g Pentium, Dual core, Core 2 Duo, core I3, i5, and i7etc. It consist ALU, Cu and memory Unit.

Q. Draw an internal diagram of computer system and explain in brief the application of various components

The Major Part Of A Central Processing Unit (CPU)

- a. Arithmetic logic unit (ALU)
- b. Control Unit
- c. Primary or main memory

Arithmetic Logic Unit (ALU): - which performs arithmetic (addition, subtraction, etc) and logical operations (Exclusive Or, And) between two numbers. The ALU is a fundamental building block of the central processing unit of computer.

Control Unit (CU):- which extract instruction from memory and decodes and execute them , calling on the ALU when necessary. control unit acts as the central “nervous system” for all other components of the computer.

Memory

The memory is an essential component of a computer system. It is required by the computer system to store instructions and data. Memory can be divided into the following two parts.

- a. Primary or main memory
- b. Secondary memory

Primary or Main Memory

Primary memory is a small and relatively fast storage unit that store data and instructions which are being currently used by the CPU. This type of memory is also known as **main memory**. Memory which is directly connects to CPU or part of CPU so it is called **internal memory** of CPU. It retains contents only for the time the computer system is on as soon as system it turn off or trip , the main memory loss its data hence it is called **temporary memory**.

There are two type of primary memory

1. RAM :

RAM stands for Random Access Memory. It is read / writes memory. Information can be written into and read from a RAM. It is volatile memory; it retains the stored information as long as it is supplied with power supply. When the power supply is switched off or interrupted, the stored information in the RAM is lost. RAMs of various capacities are available in market for example- 256Mb RAM, 512 Mb, 1GB and 2GB etc.

There are two types of RAM

- a. **SRAM:** abbreviation is static Random Access Memory that is faster and more reliable than DRAM. It does not need to be refreshed like Dynamic RAM.
 - b. **DRAM:** stands for Dynamic Random Access Memory, a type of memory used in most personal computers. It refreshed or lost data within few mile second.
 - i. **SDRAM** – stands for Synchronous DRAM, a new type of DRAM, that can run at much higher clock speed than conventional memory
 - ii. **DDR2-SDRAM:** stands for Double Data Rate Synchronous DRAM2.
 - iii. **DDR3-SDRAM:** stands for Double Data Rate Synchronous DRAM3
2. **ROM:** ROM stands for Read Only Memory . Computer always contain small amount of Read only Memory that holds instructions for starting up the computer. Unlike RAM, ROM cannot be written, it is non volatile which means once you turn off the computer the information is still there. Rom is permanent type memory. Its content is written into at manufacturing time.

There are three types of ROM

- a. **PROM (Programmable Read – Only Memory)-** A PROM is a memory chip on which data can be written only once. The difference between a PROM and ROM (Read Only Memory) is that a PROM is manufactured as blank memory, whereas a ROM is programmed during the manufacturing
- b. **EPROM (Erasable Programmable Read – Only Memory) –** is a special type of PROM that can be Erased. It can be reprogrammed.
- c. **EEPROM (Electrically Erasable Programmable Read – Only Memory) –** is a special type of PROM that can be Erased by electronically. it can be reprogrammed.

Q. What is Different Between RAM And ROM?

Difference Between RAM and ROM

Sr No.	RAM	ROM
1.	RAM stands for Random Access Memory	ROM stands for Read Only Memory
2.	Ram is Volatile in Nature	ROM is Non Volatile in Nature
3.	Data stored in RAM is erased as soon as power supply is switched off	Data Stored in ROM is permanent in nature
4.	It is Read/ Write memory	It is Read Only Memory
5.	There are two types of RAM- DRAM & SRAM	There are three types of ROM- PROM, EPROM & EEPROM

Secondary Memory or Storage Device: These types of memory are internal or external device either inside or outside the computer. It store program and data permanently. It is slower than primary storage but has more capacity storage, it is non volatile memory. Secondary memory is not directly accessible to the central processing unit of computer. Some of the common examples of secondary storage device are:

1. **Hard Disks:** a Hard disk is a magnetic disk made of metal and covered with a magnetic recording surface. Drive is the man action where all data is stored. Most Hard disk drives consist of spinning platters of aluminum, glass or ceramic that is coated with a magnetic media. a single hard disk usually consists of several platters. The data stored in hard disk can be retrieved at a very fast speed.
2. **Floppy Disk:** a floppy disk also called a disk or diskette is a removable storage disk used for storing data. It is called floppy disk because the round film inside the disk’s plastic shell is flexible (floppy). Floppies are available in 3.5” size with capacity of 1.44 megabytes.
3. **Optical Disks:** optical disks are of two types, namely compact disks(CDs) or CD-ROMs and WORM (Write once Read Many) disks
 - a. **CDs or CD-ROM:** CD-ROMs use long spiral Tracks to store data serially. The track is divided into blocks of the same size. CD-ROM provide random access data retrieval and data indexing , and disk have a shelf life of more than 40 years CD-ROM can store about 700 MB data.
 - b. **Worm disks:** WORM stands for write once Read Many. WORM disk allow user to create their own CDs by using a CD-R (CD- recordable) drive. WORM disks are CDs that are purchased blank and written onto using CD-R drive. The information recorded on WORM disk can be read by any ordinary CD- ROM Drive. But data can be written only once. That’s data once written cannot be overwritten
4. **DVD:** DVD stands for DIGITAL VIDEO DISK, or digital versatile disk. DVD disks provide more storage capacity than a CD. The disk used with DVD drives is of the same diameter and thickness as traditional CDs. DVD cannot be read by CD Drive. DVD disks provide high video resolution and high quality of sound.DVD are used for audio and video entertainment such as movies, videogames and interactive TV. DVD ROMs capacity 4.7 GB to 50 GB are available.
5. **USB Flesh Drive or Pen Drive:** USB flash drives or pen drives are NAND-type flash memory data storage device integrated with a USB (Universal Serial Bus) interface. They are typically small, lightweight, removable and rewritable. It is a flash memory card that plugs into the computer’s USB port.
6. **Memory Cards:** A memory card is a device offering an easy fast and reliable way for storing and transferring digital files. A memory card is being non-volatile and solid state.
7. **Magnetic Tap:**

It is most popular storage medium for large volumes of data that are needed to be serially accessed and processed.

COMPUTER COMPONENTS- INPUT DEVICE

Data and instructions are entered into a computer through input devices. An input device first converts desired input data and instructions into a suitable binary form (0,1) and then feed it into the CPU. The detail discussion of input device below

1. Keyboard :

A keyboard is similar to the keyboard of a typewriter. It contains alphabets, digits, special characters, functions key and some control key. When a key is pressed, a electronic signal is produced which is detected by an electronic circuit called keyboard encoder.

2. Mouse:

A mouse is a pointing device. It is held in one hand and moved across flat surface. The mouse can also be used to draw sketches, diagrams etc, on the monitor screen. As you move the mouse , the pointer on the display screen moves in the same direction. It has two button (left and right) and one wheel.

3. Joystick

A Joystick is also a pointing device. It is used to move the cursor position on a monitor screen. Its function is similar to that of a mouse and is used for playing games. A joystick is a stick which has a spherical ball at its lower end as well as at its upper end. Joystick can be moved right or left , forward or backward. This information is sent to the processor.

4. SCANNER:

Scanners are a kind of input devices. They are capable of entering information directly into the computer and scanning document image. The main advantage of direct entry of information is that users do not have to type the information. This provides faster and more accurate data entry.

5. MICR

MICR stands for Magnetic ink character reader, the MICR device can be considered as a special type of scanner. MICR device were developed in the late 1950s, mainly to assist the banking industry. MICR detects the special encoded characters on the bank cheques and deposit slip. After detecting the encoded character, the MICR converts them into digital data for computer.

6. OMR (OPTICAL MARK READER)

Optical Mark Readers are special scanner used for reorganizing a pre-specified type of mark made by pencil or pen. For example, in the objective test paper of competitive examinations, you mark your answers on a special sheet by darkening a small circle, using a pen or pencil. OMR focuses light on the page being examined and the light pattern reflected from the dark mark is then detected.

7. Light Pen: A light pen is a pointing device. It is used to select a displayed menu option on the monitor . It is a photosensitive pen like device. It is capable of sensing a position on the monitor screen when its tip touches the screen.

8. BAR-CODE READER :

Bar-Code Reader is special devices used to read bar coded data. Bar code is a specialized code used for fast identification of item. It consists of series of small lines, known as bars. Actual coding of bar is the width of bar, not the height. These are primarily used such as books, postal packages, badges.

9. VIDEO CAMERA:

A video camera is a camera that takes continuous pictures and generates a single for display on a monitor or for permanent recording. Signals generated by video cameras are traditionally analog, but nowadays digital video cameras are available.

10. WEB CAMERA

A web camera allows a computer to accept input just by focusing on an object. The camera is focused on the input object to take a picture of the object. Picture so taken can be transferred over network to a distant place. The image of the object can be seen on the monitor of the distant computer connected through a network or through Internet. Voice can also be transmitted over the network. Thus, two or more persons can talk and see one another in this way. This method is used in video conferencing.

11. Optical Character Reader

It's device which detects alphanumeric characters printed or written on a paper. The text which is to be scanned is illuminated by a low frequency light source. The light is absorbed by the dark areas but reflected from the bright areas. The reflected light is received by the photocells.

12. Track Ball

Track ball is similar to the upside down design of the mouse. The user moves the ball directly, while the device itself remains stationary. The user spins the ball in various directions to effect the screen movements.

Computer Component- Output Device

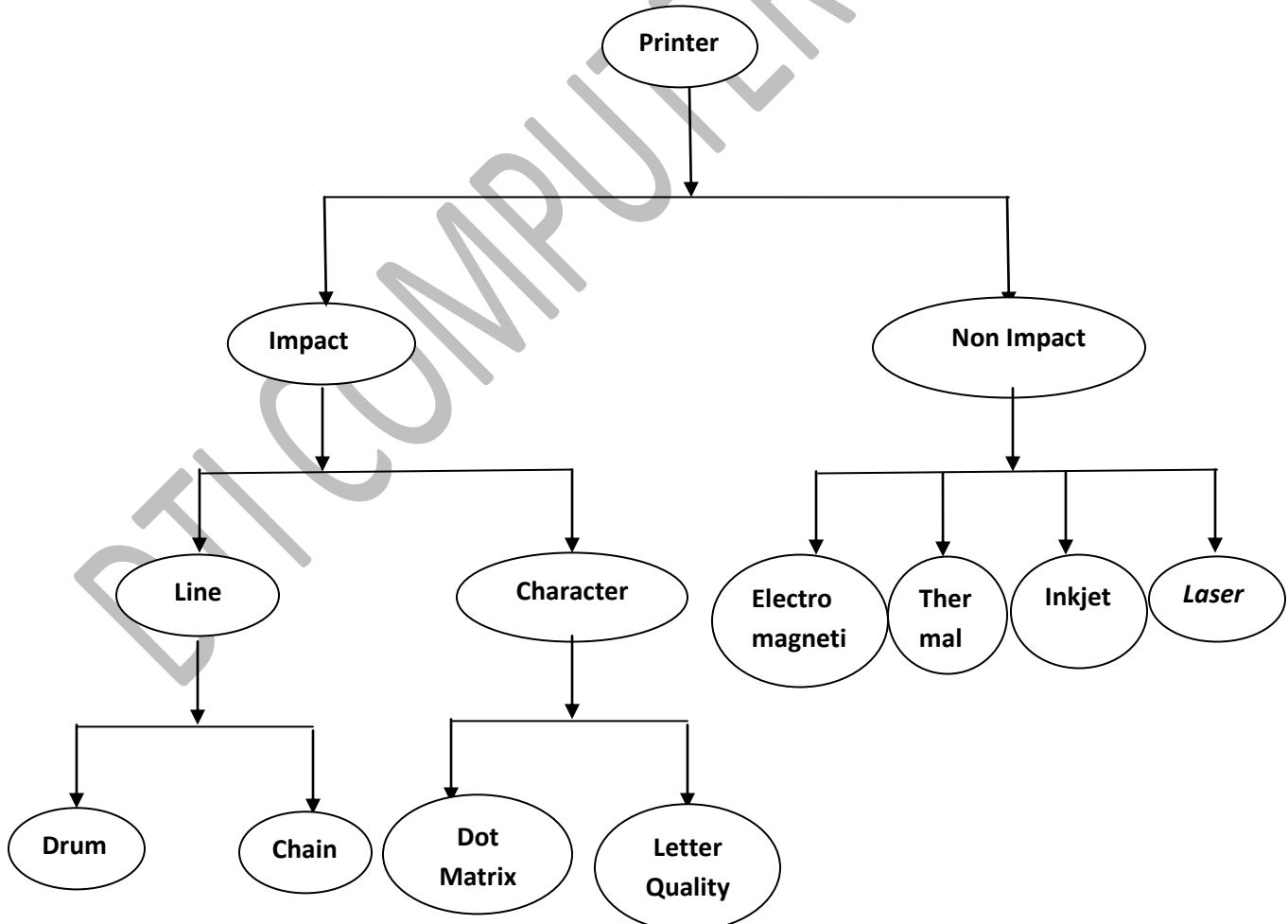
Output devices supplies information or results either in the form of hardcopy (printer) or softcopy (Monitor). Some common output devices include.

Monitor, Printers, Plotter, Multimedia projector, Speech synthesizer

- 1 **Monitor** :- Monitors come in two types
 - a. **CRT (Cathode Ray Tube)**: - A VDU or CRT monitor is similar to a television and its size measured in diagonal length of the screen. it shows text or picture in color or black and white, depending on the type color monitors are costlier than black-and white monitors. Whatever you type on the keyboard you can see it on the monitor
 - b. **TFT –LCD (Liquid crystal display)** :- LCD monitor is the flat type of monitor found on notebook PCs. TFT-LCD (Thin film transistor liquid crystal display) is a variant of liquid crystal display(LCD) which uses thin film transistor (TFT) technology to improve image quality. TFT LCD is one type of active matrix LCD. It is used in televisions flat panel displays projectors etc.
- 2 **Printer***: - Printers are the most popular output devices. They product printed outputs of results programs and data. A character printer prints one their speed ranging from 300-600 characters per second. Character printers can be classified as:
 - a. **Impact printers**: - Impact printers use an electro mechanical mechanism that causes hammers or pins to strike against a ribbon and paper to print the text. Two types of impact character printers are available: dot-matrix printers and letter quality printers.
 - i. **Dot-matrix printers**: - dot-matrix printers do not use any electro-mechanical printing head to strike against ribbon and paper. They use thermal chemical electrostatic, laser bean or inkjet technology for printing the text. Usually a non-impact type printer is faster than an impact type. The disadvantage of non-impact type printers is that they can produce multiple copies of the text.

b. **Non-impact character printers** Non impact Printer do not use any electro – mechanical printing head to strike against ribbon and paper. They use thermal, chemical, electrostatic, laser beam or ink jet technology for printing text. Usually a non impact type printer is faster than an impact type. The disadvantage of non impact type printer is that they produce only a single copy of the text whereas impact printer can produce multiple copies of the text.

- ii. **Ink-jet character printers:** - It uses the dot-matrix approach to print text and graphics. One type of an earlier ink-jet printer model uses one or more nozzles in the print head that emit a steady stream of tiny ink drops. Each droplet is charged as it passes through a valve. Then it passes through horizontal and vertical deflecting plates deflect the ink drops to direct them to the desired spots on the paper to form the impression of a character. In this type of printer a continuous stream of ink drops is used.
- iii. **Laser printers:** - Laser printers are non-impact printers. They print one page at a time. These printers use laser or other light source to produce an image on a drum turn it on and off. An image is produced following the raster scan principle. The laser exposed areas attract the toner. The raster the drum transfers the toner to the paper. The paper then moves to a fusing station where the toner is permanently fused on the paper with heat or pressure. Next the drum is discharged and cleaned. Now the drum is ready for processing the next page.



3. **Multimedia projector:** - Multimedia projector is an output device connected to PCs and used to project information from a computer onto a large screen. It is widely used for making presentations. The presenter can directly point to mark or edit the displayed information to make it more understandable. Audio video image and animation can be prepared on a PC and using a multimedia projector the presentation can be made lively and interesting.
4. **Speech synthesizer:** - Speech synthesizer is an output device that converts textual data into spoken sentences. To produce the speech basic sound units known as phonemes are combined. The sequence of words in a text is combined into phonemes amplified and outputted through a speaker attached to a computer. Speech synthesizers find wide application in treating blind or dumb people. Text information can be read out to the blind people using the speech synthesizer. Also a dumb person can type the information he wants to convey and the speech synthesizer converts it into spoken words.
5. **Speakers:** -Speakers are also kind of output devices which is used to play a sound as output. It is used in multimedia applications to play or listen to sound or music.
6. **Projector:** -Projector is output device and often used in meetings presentations. It contains a lens inside which is used to flash the film to a object

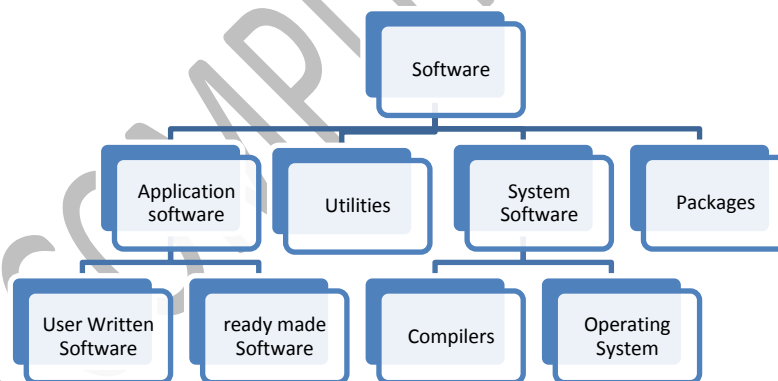
CONCEPT OF HARDWARE AND SOFTWARE

A. Hardware: -The physical components of computer are known as hardware such physical components may be electronic magnetic, circuit (ICs) hard disks, floppy disks optical disks color monitor keyboard printer and plotter etc.

B. Software: -It is the set of computer programs, procedures, and associated documentation related to the effective operation of a computer system.

Role of software in Computer: -A set of instructions that perform a particular task is called the program, or software program. The instructions in the program direct the computer to perform input operations, process the data and output the results.

Type of software: -The software is classified into following categories:



System Software*

System Software: System software is a type of computer program that is designed to run a computer's hardware and application programs. If we think of computer system as a layered model, the system software is the interface between the hardware and user applications.

The operating system (OS) is the best known example of system software. The OS manages all the other programs in a computer. In general, system package support the following:

- a) Running of other software
- b) Communicating with peripheral devices such as printers, card readers, and disk and tape devices.
- c) Development of other types of software
- d) Monitoring the use of various hardware resources such as memory peripherals, CPU, etc.

System software thus makes the operation of the computer system more effective and efficient.

Application Software*

An application is a program or group of programs designed for end users. Application software (also called end user programs) includes database programs, word processor, and spreadsheets. Figuratively speaking, application software sits on top of system software because it is unable to run without the operating system and system utilities.

Application software can be divided into the following categories

- **Word processors** e.g.- Ms word, WordStar etc
- **Spread sheet package** e.g.- Ms- excel, Lotus-1-2-3
- **Presentation package** e.g.- Ms – Power Point, Flash
- **Database Package** e.g.- Ms- Access, SQL server
- **DTP package** e.g.- Adobe Photoshop, page maker, coral draw
- **Utility Software** e.g.- Antivirus, Disk Cleanup, Disk Defragmenter
- **Customized Software** e.g. Railways reservation system

Shareware Software

Shareware is a marketing method for software, whereby a trial version is distributed in advance and without payment, as is common for proprietary software. Shareware software is typically obtained free of charge, either by downloading from the Internet or on magazine cover-disks. A user tries out the program, and thus shareware has also been known as ‘try before you buy’, demo ware, and trialware and by many other names. A shareware program is accompanied by a request for payment, and the software’s distribution license often requires such a payment.

Free software:

“Free software” means software that respects users’ freedom and community roughly, the users have the freedom to run, and copy, distribute, study, change and improve the software. With these freedoms the users control the program and what it does for them.

A program is free software if the program’s users have the four essential freedoms.

- The freedom to run the program, for any purpose
- The freedom to study how the program works and change it so it does your computing as you wishes. Access to the source code is a precondition for this.
- The freedom to redistribute copies so you can help your neighbor
- E.g. CCleaner Avast Anti Virus.

Proprietary Software

This means that someone owns the rights to the program, and the owner expects users to buy their own copies. Microsoft Office is a typical example. If you want to acquire this software to write letters of produce graphics, you must purchase a registered copy in a store, through a mail order house, or over the Internet. In buying the software, you pay not own it, but to acquire a license that makes you authorized user. Organizations such as businesses and schools, which may need software for use by several people, generally acquire site lances that allow access by multiple users.

Compilers

Compiler is a translator which convert high level language into machine level language. it execute the whole program at once. it is faster than interpreter. compiler shows list of errors along with line number at the end of program execution.

Interpreters*

interpreter is a also translator which convert high level language into machine level language. it execute the program line by line. it is slower than compiler . interpreter shows error line by line. it is smaller program as compared to the compiler

Difference between System Software & Application Software ?

System Software

1. System software gets installed when the operating system is installed on the computer
2. System program includes programs such as compilers, debuggers, drivers, assemblers.
3. Generally, users do not interact with system software as it works in the background
4. A computer may not require more than one type of system software
5. System software can run independently of the application software

Application Software

1. Application software is installed according to the requirement of the user
2. Application software includes media players, word processors, and spreadsheet programs
3. Users interact with application software while doing different activities
4. There may be a number of application software program
5. Application software cannot run without system software

Exact Number Of Bytes		
Unit	Smallest Unit	-----
Nibble	4 Bits	---
Byte	8 Bits	---
Kilobyte (KB)	20^{10} Bytes	1024 bytes
Megabyte (MB)	20^{20} Bytes	1024 KB
Gigabyte (GB)	20^{30} Bytes	1024 MB
Terabyte (TB)	20^{40} Bytes	1024 GB
Petabyte (PB)	20^{50} Bytes	1024 TB
Exabyte (EB)	20^{60} Bytes	1024 PB
Zettabyte (ZB)	20^{70} Bytes	1024 EB
Yottabyte (YB)	20^{80} Bytes	1024 ZB

There are four types number.

- Binary number (0,1) & base 2
- Decimal Number (0-9) & base 10
- Octal Number (0-7) & base 8
- Hexadecimal Number (0-9,A-F) base16

Exercise

1. Convert (6806)₁₀ to Binary and (7305)₈ to Hexadecimal.
2. convert binary number 100111 into a Decimal number
3. convert decimal to binary number : 75, -50
4. convert binary to decimal number : 00010111, 00001111
5. Convert (A8c4)₁₆ to octal
6. Decimal equivalent of the binary number 110111 is-
7. is the decimal equivalent of 100100
8. convert D6FA to Decimal
9. convert (7706)₈ to Hexadecimal
10. Convert (7305)₁₀ to octal
11. convert (1765)₈ to Hexadecimal
12. convert (11001)₂ to decimal Number



13. convert binary number 100111 and 101.11 into hexadecimal number

DTI COMPUTER MATHURA

Chapter -2 Operating System

Q1. What is Operating system? Define the various function of OS?

Operating system (OS) is a software program that control the internal activities of the computer hardware and provide user interface. Application programs also need to interact the operating system for using hardware resources. OS is the first program loaded (copied) into the computer's main memory after the computer is switched on.

One of the primary jobs of the operating system is to provide an interface between the user and the hardware.

Operating system performs the following functions:

1. **Processor management:**
2. **Memory management**
3. **Input/output management**
4. **File Management**
5. **Scheduling**
6. **Timesharing**
7. **Security management**

PROCESSOR MANAGEMENT:

The operating system assigns processors (if a computer has more than one processor) to the different task that must be performed by the computer system.

MEMORY MANAGEMENT

It (OS) allocates the main memory and secondary memory to the system programs, user programs and data.

INPUT/ OUTPUT MANAGEMENT

It carries out the input / output management and coordinates and assign different input and output device.

FILE MANAGEMENT

It manage file on various storage devices and the transfer to these file from one storage device to another. It also allows all files to be easily changed and modified through the use of text editors or some other file manipulation software package.

SCHEDULING

It establishes and enforces the job priority. That is , it determines and maintains the order in which jobs are to be executed in the computer systems.

TIMESHARING

It co-ordinates and assign compilers, assemblers, utility programs, and other software package to various users working on the computer system.

SECURITY MANAGEMENT

It establishes data security and integrity. That is , it keep different programs and data in such a manner that they do not interfere with each other. It also protects data from being destroyed by any other user.

Q2. What are the various types of operating system?

- a) **Single User Operating System-** operating system which allow only one user to work on a computer at a time is knows as single user operating system. Example including DOS.

- b) **Multuser Operating System:** operating system which allow number of user to work together on a single computer at a time is knows as Multi user operating system. Example including UNIX, LINUX
- c) **Single Tasking Operating System :** operating system which can execute a single job at a time is known as single tasking operating system. For example, MS -DOS
- d) **Multitasking Operating system :** Multitasking operating system allow user to perform more than one job at the same time on a computer. Most of today's operating system such as windows 9x, Os/2, Unix, LINUX etc. support multitasking .
- e) **Real Time Operating System-:** Real time operating systems works towards providing immediate processing and also responding to user's command in a very short time. Its aim at executing real time applications. Success of real time system does not depend only on the correctness of the result, but also on the timeline of the result. A correct answer obtained after the expiration of time limit is as bad as a wrong answer. Some example of Real time operating system are HP-RT and VTWorks.
- f) **Network Operating System :-** Network operating systems (NOS) is an operating system specifically designed to support interconnection of several computers. NOS provide support for multiuser operations as well as administrative, security and network management functions. Some example of NOS are Novell's Netware
- g) **Distributed Operating system: -:** an operating system that manages a group of independent computers and makes them appear to be a single computer is known as a distribute operating system.

Q3. What is Linux Operating System? Define the important parts of Linux. what are the advantage of LINUX over windows?

Linux is a multiuser, multitasking & open source operating system first developed by Linux Benedict Torvalds in the year 1991. Linux is a 32 bit operating system. It runs on a wide variety of platform such as intel, sparc, Alpha etc.

it can be considered in every sense as a full –blown implementation of UNIX. But it cannot be called as UNIX because UNIX is a registered trademark product owned by AT & T.

LINUX is a distributed as a free software under a free software license called the GNU general Public Licence(GPL).

THREE IMPORTANT PARTS OF LINUX OPERATING SYSTEM ARE:

1. Kernel
2. Shell
3. File System

KERNEL

The kernel is at the core of LINUX system and is loaded into the memory as soon as the system starts up. It manage main memory, files and peripheral devices. Maintaining the time and date, launching applications, and allocating system resources are also functions of this part of the operating system.

Shell

Shell is a program which interprets commands given by user. The command can be either typed in through the command line or contained in a file called 'shell script'. Commands in 'shell script' files are interpreted by the shell

File System

Linux treats everything as file. Even a directory is treated as a file that contains entries for several other files. All the hardware devices, such as I/O devices, storage devices etc. are all treated as files.

The Linux files system is organized in a hierarchy which starts with the root directory . The root is represented by a forward slash(/). Under the root directory are several system directories and the home directory.

Advantage Of Linux Over Windows

1. Easy to install applications . Installing new programs in Linux is easier than in windows
2. The majority of Linux variants are available for free or at a much lower price than Microsoft windows.
3. It is rarely attacked by viruses
4. Linux community on the internet is very active and helpful.
5. It is easy to find solutions to problems

Q5. What is Role of Disk Defragmenter & Disk Cleanup in Windows?

Disk Defragmenter-: Disk Defragmenter consolidates fragmented files and folders on your computer's hard disk, so that each file occupies a single, contiguous space on the volume. As a result, your system can gain access to your files and folder and save new ones more efficiently . By consolidating your files and folder, Disk Defragmenter also consolidating the volume's free space, making it less likely that new file will be fragmented.

Disk Cleanup -: You can use Disk Cleanup to free space on your hard disk by removing temporary internet files, installed components and programs that you no longer use, and emptying the recycle bin. Computer clean up tools are available in windows.-

Click on **start** button → **All Program** → **accessories** → **System Tools** → **Disk CleanUp**.

Q. What is cache memory ?

Cache memory (pronounced as the "cash memory") is placed in between the cpu and the main memory. It is faster than the main memory. Hence access time is much less than that of the main memory. The access time of a cache memory is 15-25 nanoseconds whereas that of the main memory is 80ns. One nanosecond = 10^{-9} second. The cache memory stores instructions and data which are to be immediately executed. It is used to reduce the average access time for address, instructions or data which are normally stored in the main memory. Thus it increase the operating speed of the system. Cache memory is much costlier than the main memory. From economical considerations, the size of cache memory is usually smaller than that of the main memory.

Q7. What is Virus ? classified the category of VIRUS ?

A Virus is a program created by programmers to infect the operation of a computer system. After the virus code is written, it is buried within an existing program, and, once that program is loaded into the computer, the virus replicates by attaching copies of itself to other programs in the system. Virus are normally found in the network environment.

Viruses are classified in the following types :

A. Trojan Horse

B. Time and Logic Bombs

C. Melisa and SKA Virus

D. Malware

A. Trojan Horse : a virus is called a Trojan horse that continues to infect programs over and over again. It also pretends to do something useful or interesting . But when run, it produces some harmful effects like scrambling FAT (File Allocation Table) or formatting the Hard Disk.

B. Time and Logic Bombs : _ A Time and logic bomb is a program that destroys data. For example, it may reformat the hard disk or randomly insert garbage into data files. A time bomb as the name suggest, is triggered by an event. It can format the hard disk on a given data or slow down computer every Friday or make a ball bounce around the screen.

C. MELISSA AND SKA VIRUS : Melissa virus attacks MS- Word documents and spreads very fast. This virus affects word documents by installing itself to normal.doc and disabling the macro protection message and infects all the word files open or created subsequently. The message generated by the virus says " Here is a document you asked for .. don't show anyone else."

D. Malware : it is short of "Malicious software" malware refers to software programs designed to damage or do other unwanted actions on a computer system. In Spanish, "mal" is a prefix that means "bad" making the term "badware" which is good way to remember it. Common example of malware include virus worms, trojan horses, and spyware.

Spyware can gather data from a user's system without the user knowing it. This can include anything from the a user's system without the user knowing it. This can include anything from the web pages a user visits to personal information, such as credit card numbers.

What is BUG ?

A software bug is the common term used describe an error, flaw, mistake, failure, or fault in a computer program or system that produces an incorrect or unexpected result. It may cause it to behave in unintended ways. Most bugs arise from mistake and errors made by people in either a program's source code or its design, and a few are caused by compilers producing incorrect code.

What is Multimedia ?

Chapter -5 Basic of Word Processor

Q. Give Different feature of word processing which makes it useful for administrative staff.

Introduction

word processing package such as word 2007 helps enter text and manipulate words and phrases. You can change typed letter, document and report easily and store them for future use. You can even print these documents created on a word processor can be made accurately , giving better look and printed for use . A word processor allows you to function more effectively and efficiently with minimum effort .

WORD PROCESSING TERMINOLOGIES / Feature

- 1. Word Wrap :** A word processor automatically moves the text to the next line when you type beyond the right margin. This is known as Word Wrap.
- 2. Editing of text :** With a word processor, you can insert new words, new sentence or new paragraphs anywhere in the text typed earlier. The new text will get adjusted automatically. Similarly, you can delete any portion of the text and the remaining part of the matter will get adjusted automatically.
- 3. Selection:** A selection is a group of words that are put together . A word processor can perform various operations on a selection, such as copying, moving or deleting.
- 4. Moving / copying selection :** You can move a selection to another Location in the same document or copy the text at another location with the help of a word processor. This saves the effort of retyping the text.
- 5. Search and Replace :** With a word processor you can a search for any specified word or character in a document and replace it with another word as desired.
- 6. Dictionary / Grammar Check :** If a word in your document does not match with the word in the dictionary, it means that either that word is misspelled or that the word is not loaded in the dictionary. The dictionary features will make a list of unmatched words for you to take appropriate action. If your document is legal or technical one, you can even use a legal/technical dictionary for checking spellings.
- 7. Character Styles And Sizes** You can change the type and size of characters so that a printed document appears more attractive and professional. You can use bigger and bold letters for main headings. You can use italic character to emphasize a word.
- 8. Header footer and page numbering:** A header is a special text which is printed at the top of each page above the normal text. Footer is a special text which is printed at the bottom of each page. Word

2007 can generate page numbers automatically in a document and also print headers, footers on each page.

9. Margins and columns : The left and right margins are the distances between the text and the left and right edges of the paper. It is normally one inch but you can adjust it easily.

10. Justification Of The Text : Justification is the alignment of the text typed within the given margins. The text can be **left, right, centre** or even **justified**.

in the left justification, the text has a straight left edge and an uneven right edge.

in the right justification, the text has a straight right edge and an uneven left edge.

in the right justification, the text appears between the right and left edges of the paper.

In even (full) justification, the text is aligned on both the left and right margins of the page.

11. Line Spacing : In a word processor, the spacing between the lines can be adjusted. You can leave one or more blank lines between every two typed lines but the default line spacing for a word processor is single line spacing. When one line is left blank between two typed lines, it is known as double line spacing. This kind of spacing is normally used for draft letters.

12. Tab Setting You can set tabs in a word processor for typing columns in a document as in the case of a typewriter. You may want to use the ruler to set manual tab stops at the side, middle and right side of your document.

13. Tables : A table is made up of rows and columns of cell that you can fill with text and graphics. Tables are used to organize and present information, but they have a variety of other uses as well. You can use them to align numbers in columns, and then sort and perform calculations.

14. Hyphenating Documents: The hyphenation features of a word processor can break or hyphenate words so they may fit better on a line. Word 2007 can hyphenate the words in a documents automatically as you type or manually when you have finished typing.

Chapter -6 Basic concept of word 2007

6.1 Introduction : in this chapter, you will first familiarize with the working environment in word 2007. The ribbon is designed to help you find the commands quickly, and then you will add button to word 2007 quick access toolbar. Then you will be creating and opening an existing word 2007 document, saving, printing, moving around in it, and quilting word 2007.

6.2 Starting Word:

To start word 2007, do this:

Click **Start** button → **All Programs** → **Microsoft Office** → **Microsoft Word 2007**

6.3 Using word 2007 interface : There is a new look for word 2007 and a new interface that replaces menus, toolbars and most of the task panes from previous versions of word with a single mechanism that is simple and easy to learn. The new interface is designed to help you to be more productive. You can find the right features of various tasks more easily, discover new functionality and be more efficient.

6.3.1 Office Button: This button is located in the upper left corner of the word 2007 window. The command related to managing word and word documents are gathered together on an office button displayed as you click that button.

6.3.2 QUICK ACCESS TOOLBAR : This toolbar is located by default at the top of word 2007. window by default this toolbar displays the save, undo and repeat buttons.

6.3.3 Dialog Box Launchers: Dialog box launchers are small icons that appear in some groups. clicking a dialog box launcher opens a related dialog box or task pane, providing more options related to that group.

6.3.4 Word 2007 Document Window :

1. **Title Bar:** it is the top of an open window and is called title bar.
2. **Minimize Button :** an underscore(_) at the right of a title bar which stores an application programmed at the bottom of the screen.
3. **Maximize Button :** a box at the right of a title bar that fill available space with the document or application.
4. **Close Button:** a box at the right of a title bar marked as (X) that close the window or dialog box , when you click it with a mouse pointer.
5. **Restore Button:** a double at the right of the a title bar that restores an application or document into a sizable window.
6. **Help Button:** It appears at the right end of the ribbon. When the mouse pointer is over any button for a few seconds it display a screen tip with not only the button 's name but also its function

- 7. Status Bar:** At the bottom of the window, the status bar gives you information about the current document. You can turn off the display of an item of information by right-clicking the status bar and then clicking that item.
- 8. View Toolbar :** At the right end of the status bar is the view toolbar. It provides tools for adjusting the view of the document.
- 9. Mouse Pointer:** The on-screen arrow, I-beam, or drawing button indicates the current location affected by mouse actions.
- 10. Select Browse Object :** The toolbar that enables you to browse through an active document by field, endnote, comment, section page, edit heading, graphics, or by table. Go to and find functions are also part of this toolbar.
- 11. Split Box :** Light gray bar at the top of vertical scroll bar that you can drag down to split a window into two views of the same document.
- 12. Screen Tips:** Screen tips show the name of the command button shown in ribbon. Screen tips appear as soon as you position the mouse pointer on the selected tab command.
- 13. Ribbon :** Ribbon is displayed just below the title bar. In ribbon, commands are organized in logical groups, which are collected together under tabs. You can hide the ribbon by double-clicking the active tab. Different types of tabs are available in Word 2007.
- Home Tab:** This button is related to working with documents such as clipboard, font, paragraph, styles, and editing.
 - Insert Tab:** This button is related to items you can insert: tables, header and footer, and symbols, picture, clipart, word art, Smart Art, Textbox, etc.
 - Page Layout Tab :** This button is related to the appearance of the document such as page setup, page background, watermark, Paragraph, themes, and arrange.
 - Reference Tab:** This button is related to items you can add to long documents such as table of contents, footnotes, Bibliography, captions, index, and table authorities.
 - Mailing Tab:** This button is related to creating Mass Mailing.
 - Review Tab :** This button is related to proofing, commenting, and changing documents such as spelling & grammar, track changes, etc.
 - View Tab:** This button is related to changing the view or the display of documents.
- 14. Scroll Bar :** The scroll bar appears at the left for vertical scrolling and at the bottom for horizontal scrolling as seen in Word 2010, you can work simultaneously with more than one document.
- Customize the Quick Access Toolbar.**
- At the right-hand side of the **quick Access Toolbar**, click the **customize quick access Toolbar** button.
 - Click any one option you need it (To add button in quick access toolbar).
 - Right-click any option → Click on **Remove From Quick Access Toolbar**.
- 15. Ruler :** The ruler helps you to control the margins, the paragraph indentation, and the tab settings for a document.

Displaying or Hiding Rulers :


1. Click on **View Tab** → Select The **Ruler Check Box**
2. Click on **Ruler Button** just above the **vertical scroll Bar (Second Method)**

6.4 Working With A Mouse:

6.4.1 Mouse Terminology with word:

Action	Function
Point	Position the Mouse Pointer on an Item
Single Click	Move the cursor wherever you click
Double Click	Select a single Word
Triple Click	Select the Entire Paragraph
Drag	Press And Hold Left Mouse Button as you move the mouse to new location, and then Release Button.

6.4.2 Shape of the Mouse Pointer: the Mouse Pointer changes shape, depending on what you are pointing to task you are performing.

Pointer	Location	Function
 <small>I-beam pointer</small>	Text Area	Type, Select text, or Reposition the insertion point
	Command On the Tabs, inactive window, scroll bar, toolbar or Ruler	Choose Commands, click buttons or drag
	Selection Bar, table Selection, style area along the window's left edge	
	Within a selection when you hold down the left mouse button	Drag the Selection to a new location where you insert
	Along the Slides, top ,bottom or corner of the window, frame or embedded object or picture	Drag to Resize a window, frame, graphics, or embedded object or picture vertically or horizontally.

6.5 Using Word 2007

- **Creating a Document**
- **Typing and Editing a document**
- **Opening and saving a document**
- **Moving around in a document**
- **Printing a document**
- **Closing a document and quitting from word processor**

Problem No1. To Create a New Document, do this:

(Ctrl+N)

1. Click on **OFFICE BUTTON** → Click on **New** option
2. Select **Installed Template** from Left Pane

3. Click **Oriel Letter** template
4. Editing your document

Problem No2. Typing and Editing a Document

Word-wrap: you can start typing in a document without worrying about the end of the right margin. Words at the end of the line will automatically wrap text to the next line.

You may correct the text by pressing **BACKSPACE** key

Saving Document

The first time you save a file, you need to specify three items:

1. The Drive and Folder (in which you want to store file)
2. The Name of File
3. The Format to save the file

Problem No3 . Save a New Document, do this: (Ctrl+S)

1. Click on **Office Button**
2. Click on **Save** Option
Save AS Dialog Box appear on the screen
3. Select Drive → Folder →
4. Type File Name **DTI** in box
5. Click on **Save** Button

Problem No4. To Opening an Existing Document, do this: (Ctrl+O), (Ctrl+F12)

6. Click on **Office Button**
7. Click on **Open** Option
Open Dialog Box appear on the screen
8. Select Drive → Folder → File
9. Click on **Open** Button

Problem No-5 Print Preview & Print A Document (Ctrl+F2), (Ctrl+P)

Before you print a document, it is necessary to preview it to check page breaks and the overall appearance of the document.

1. Click **Office Button** → **Print** → **Print Preview**
2. Click on **Print** Option
3. Select Desire Setting → Click **Ok** Button

Problem No- 6 Closing, opening Document and Quitting Word 2007 Ctrl+W

1. if you want to close the previously opened document choose **OFFICE BUTTON** → **Close**
2. To Quit word 2007 click **OFFICE BUTTON** → **Exit**

Chapter -7 Editing word 2007 document

7.1 Typing Text:

When you open a new document in word 2007 the insertion point is at the top left corner of the screen. you can start typing in this document. you can make changes at any time by editing the document.

7.2.1 Typing New text over the Existing text:

By default, word 2007 moves the existing text to the right as you insert new characters. if you want the new text to replace the existing text, character by character, switch to overtype mode.

Problem No7. To type over the existing text, do this

Method 1st :

- 1 Right Click on status bar → Click Overtyping Mode

Method 2nd :

1. Click **Office Button** → **Word Option**
2. Click on **Advanced** Button
3. Select The **Insert key to control overtype mode check box**
4. Click on **Ok** Button

Problem No8. Starting a New Paragraph

Enter Key

- A paragraph ends whenever you press the **ENTER** Key. even if you not typed any text .
- To start a new paragraph , and press the **ENTER** Key

Problem No9 . Starting a New Line

Shift+Enter

Word automatically wraps text to the next line when the types text reaches the end of the right margin.

to start a new line within same paragraph press → **Shift + Enter** Key

7.3 Applying Correction In The Typed Text

To Delete	Key Combination
Selected Text	BackSpace or Del
Character before the insertion point	Backspace
Character after the insertion point	Del
A Word before the insertion point	Ctrl+ Backspace
A Word after the insertion point	Ctrl+Del

7.4 To Restore or Undoing Mistakes

If you mistake in word 2007, you can apply "undo" command. There are certain action cannot undo, such as saving or printing a document.

1. Click the **undo** (reverse) / **Redo** (forward) button from **quick access** toolbar
or

2. Press Ctrl+ Z or Ctrl+ Y for (Undo/ Redo)

7.5 Select the Text with the Pop-up Toolbar

Word 2007 displays a popup toolbar. For example, select the text you want to apply formatting such as bold , font size etc, a pop up toolbar appears to the upper right of the selected text as a faint image. the closer you move the mouse towards this pop - up toolbar, the darker and sharper the toolbar appear as seen.

Problem No10 . How to use pop-Up toolbar

1. Type text or paragraph
2. Select with mouse using drag option
3. Move the pointer
4. A pop-up toolbar appear on the screen
5. Do action such as - Bold, italic, color, size etc.

7.6 Moving or Scrolling with a keyboard

Sr No	To Move	Press
1.	One Character Left	← Key
2.	One Character Right	→ key
3.	One line up	↑ Key
4.	One line down	↓ key
5.	One word to the left	Ctrl+ ← key
6.	One word to the Right	Ctrl+ → key
7.	To the end of a line	End
8.	To the beginning of a line	Home
9.	One Paragraph Up	Ctrl+ ↑
10.	One Paragraph Down	Ctrl+ ↓
11.	Up one Window	PgUp key
12.	Down one Window	PgDn Key
13.	To the top of the next page	Ctrl+PgDn
14.	To the top of previous page	Ctrl+PgUp
15.	To end of document	Ctrl+Home

7.7 Using Go To Command:

You can move quickly to a location in a document using the **Go To Command**. For this command, you specify, a page, section, line, footnote, table headings, etc. For example, you can use the Go to command with page numbers to move back forth between page in a document.

Problem No11 . How to use Go To Command

Ctrl + G

1. Click on **Home** Tab
2. Click on **Find Next Arrow** → Go to Button
3. Find and Replace Dialog Box is displayed on the screen
4. In the **Go to What:** list box → **Select Page**
5. in the Enter page number: **+5**
6. Click on **Go To** button

7.8 Moving to a Previous Location:

Word 2007 remembers the last three locations where you typed or edited text. Pressing Shift+F5 (Go Back Key combination) returns the insertion point each of the previous location in turn, then return the insertion point to its original position.

To Return to a previous editing Location, do this:

- ✚ Press Shift+F5 key together until you reach the location you want.

7.9 Selecting Text for Editing:

A. Selecting Text with a Mouse:

Text To Select	Mouse Action
A Word	Double - click the word
A sentence	Ctrl+ mouse left click
A lines	Click selection bar
Multiple Line	Click selection bar and drag up or down tile the end of lines
A Paragraph	Double- click selection bar
Document	Ctrl key and click in selection bar

B. Selecting Text with a Keyboard

Text To Select	Mouse Action
A Word	Shift+Ctrl+ → or ←
Paragraph	Shift+Ctrl+↓ Or ↑
To the beginning of a line	Shift + Home
To the end of a line	Shift+ End
One line at a time	Shift +↓ or Shift + ↓
To the beginning of Document	Shift+Ctrl+Home
To the End of a document	Shift+Ctrl+End

C. To select from the insertion point to a distant location, do this:

- ✚ Move insertion point to the beginning of the text you want to select
- ✚ Press F8 key (Extend Selection)
- ✚ Press one of the key listed in the table.

To select	Press
Next or Previous Character	→ Or ← arrow key
The End of line	End Key
The Beginning of a line	Home key
The top of the previous screen	PgUp key
The bottom of the next screen	PgDn Key
The begining of a document	Ctrl+Home Key
The End of a document	Ctrl+End Key

7.9.1 Using Find And Replace::

Word 2007 has a very powerful, find and replace feature which greatly simplifies editing of text. The Editing command is in the home tab for finding and replacing text.

Finding Text:

With the find feature in word 2007, you can locate a specific text. You can also search for special characters, such as tabs, page break, extra space, line numbers, footnotes etc within a document.

Problem No.12	How to find specific Text in document:	Ctrl+F
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- ✚ Click on **Home** Tab
- ✚ Click on Find Button
Find And Replace Dialog Box is displayed on the screen
- ✚ **Type text** in Find what Text Box
- ✚ Click on **Find Next** Button

Replacing Text:

You can replace searched text automatically using replacing text facility in word 2007. You can use the replace command to search for every occurrence of the incorrect spelling and replace it with correct version. For Example replacing incorrect word **dcument** with **document**

Problem No.12	How to Replace specific Text in document:	Ctrl+H
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- ✚ Click on **Home** tab
- ✚ Click on **Replace** Button from Editing Group
Find And Replace Dialog Box is displayed on the screen
- ✚ **Type text** in Find what Text Box
- ✚ **Type text** in Replace with Text box
- ✚ Click on **Replace** Button (to replace only one)
- ✚ Click on **Replace All** (to Replace all word in document)
- ✚ Click **Cancel** or press **Esc** Key to Return to the document

Problem No.13	Moving Text and Graphics using Drag and Drop Technique
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- 1 Select **Text or Graphics** you want to move
- 2 Point to the selected Text or Graphics
- 3 Press hold down the left mouse button
- 4 Release the mouse button to drop text at desired place

Problem No.14	Copying Text and Graphics using Drag and Drop Technique
----------------------	--

- 1 Select **Text or Graphics** you want to move
- 2 **Point to** the selected Text or Graphics
- 3 Press hold down **Ctrl** key with **left mouse** button
- 4 **Release** the mouse button to drop text at desired place

7.9.2 Using Keyboard shortcuts for moving and copying

Action	Key Combination
To copy text	Ctrl+C
To Move Text	Ctrl+X or Shift +Del
To clipboard	Ctrl+V or Shift + Ins
Move a paragraph up	Alt+Shift+↑
Move a paragraph Down	Alt + Shift + ↓

Pasting the same text or Graphics in several locations:

The clipboard is a temporary memory area for holding text and graphics. Each time you use the cut or copy command, the selected text or graphics copies the contents to the clipboard . after you paste that into a document, a copy of it still remains on the clipboard. Therefore you can paste the selected text again whenever you want to in the document.

Student Assignment:

Chapter – 8 word 2007 Editing Tools

8.1 USING SPELLING CHECKER:

The Spelling checker is a flexible and powerful tool will automatically check spelling in a paragraph or the entire document. It finds and corrects the spelling errors but does not consider the context of words. For example, it cannot check the improper usage of various words, namely farm in place of form or no in place of know.

Checking a document's spelling automatically

- Click on **OFFICE BUTTON** and select the **WORD OPTIONS** → word option dialog box appears → select **PROOFING** → when correcting spelling and grammar in word → **Select Check Spelling As You Type** check box. Then click **OK**.

To check spelling of words with a wavy underline, do this:

- **Right click** an underlined word. A popup menu appears. It display a list of suggested and additional options
- You have four choices for correcting the misspelled word these are:
 1. Select word from the list shown in the popup menu.
 2. Select ignore to leave the word as it is
 3. Select ignore all to ignore all occurrence of the word in your document
 4. Select add to add the word to the selected dictionary displayed in the spelling dialog box.
 5. Select Auto and choose the correct spelling to automatically correct the misspelled word.

Spelling command for checking spelling & Grammar

Select the word or select a document that you want to check for spelling. If you select nothing , word 2007 checks the entire document.

1. Click the **review** tab
2. Click **proofing** command
3. Click the **spelling and grammar** or press **F7** key. Select the correct word from the suggestions.
4. Click on **change/undo** button. if you do not want to change click on **cancel** .

8.1 Testing Document Readability:

Readability statistics would determine how easy to read you document. A document which is easy to read, communicates more clearly.

Problem No. How to Display readability Statistics, do this

1. Click on Office Button → word option → Proofing Tab
2. Click on check box show readability statistics
3. Click on Ok button

Note: After complete check & spelling grammar is completed than Readability Statistics dialog box is displayed on the screen.

8.2 USING THESAURUS

Thesaurus is a word 2007 electronic database that contains English words with similar meaning. It defines selected words and offer alternative meaning. It defines selected words and offer alternative terms. When you are not sure of particular word's meaning, or you think you are using a particular word too often.

Problem No. How to use thesaurus**Shift + F7**

1. Select word
2. Click Review tab → Proofing command
3. Click on Thesaurus button
4. Select the Accurate Word
5. Click the arrow next to accurate and then click **Insert**
6. Close research task pane

Q. what is AutoText feature in word 2007 and How is it done?

In word 2007 the AutoText features was renamed. It is now called building blocks. The features is basically the same as AutoText in previous version but in but 2007 the building blocks have additional functionality

You will save time effort by storing selected text and graphics including formatting that you see repeatedly

AutoText can contain pictures and graphics or digitized signatures, graphics letterheads, logos, or symbols.

Problem No Creating an AutoText Entry

1. Select the Text, graphics, Table
2. Click **insert** Tab
3. Choose **Quick Parts** in text Group
4. Click **Save Selection to Quick Part Gallery...**
5. Creating New Building Blocks dialog box is displayed on the screen.
6. Type Name : **mywork**
7. Click on **OK** Button

How to use AutoText Entry in Document

1. Put the cursor in document
2. click On Insert Tab → Quick Parts
3. select your Text Entrées

USING AUTOCORRECT FEATURE

The autocorrect feature in word 2007 recognizes typing mistakes and automatically corrects them. AutoCorrect feature can also be used to type long words. from an abbreviation automatically. For example, to automatically type the phrase not applicable, when you type the abbreviation na.

Creating AutoCorrect Entries

1. click the office button → Word Option

Word option dialog box appear

2. click on **Proofing** Tab →Click **Auto Correct** option
3. in the **Replace** : text box → type misspelled word
4. in the **With:** Text Box →type correct Spelling word
5. Click on **Add** Button
6. Click on **Ok** Button

Deleting AutoCorrect Entry

1. click the office button → Word Option

Word option dialog box appear

2. click on **Proofing** Tab →Click **Auto Correct** option
AutoCorrect Option Dialog Box is appear on the screen
3. Select Entries you want to delete
4. Click on **Delete** Button

Using Word Count Feature

the Word Count command totals the number of pages, word, characters, paragraphs, and line in a document. you can even choose to include footnotes and endnotes in the total. you can also find the word count in the status bar at the bottom of the window.

To use the Word Count Feature

1. click on the **Review** Tab → Click on **Word Count** under the **Proofing** Group
2. Click on **Close** Button

Student Assignment

Q1. How can You check spelling in word? what are the various option available to correct the wrong spelling?

Q2. what is shortcut key to check spelling grammar

Chapter -9 Text Formatting

Introduction

- Formatting is the process of specifying how a document should appear when printed. Formatting can be divided into three categories:
 - I. Character formatting
 - II. Paragraph formatting
 - III. Document formatting
 - IV. Character formatting terminology

Characters

characters are the letters, numerals, punctuation marks and special symbols (such as *, #, and &) that you type from the keyboard.

Fonts and typefaces

The terms fonts and typefaces are not actually the same but are used interchangeably. A font or typeface is defined as a collection of characters and symbols with a common appearance or design. **Courier** is an example of font.

Font families

A collection of all variations of a font is called a font family. For example, the Arial font family. This family includes **Arial**, **Arial black** and **Arial narrow** characters.

Monospaced and Proportionally spaced fonts

1. **Monospaced (fixed in width)**
2. **Proportionally spaced (made variable in width)**

Monospaced Fonts

Fonts like **Courier** use the same amount of horizontal space on a line for each character. With a monospaced font a letter I take the same amount of horizontal space as the letter W. monospaced fonts are used in legal documents. This is an inefficient use of space and causes uneven looking words.

Proportionally spaced fonts

Proportionally spaced fonts fit narrow letters in less space. **Arial** and **Times New Roman** are examples of proportionally spaced fonts used in MS-WORD.

Font sizes

The size of the font is measured in points, and as the point size increases, the size of the letter also increases. One point equals $1/72^{\text{th}}$ of an inch.

Point size is the measure of a font's height but not its width. Many font families are available in compressed and expanded forms as well as in normal widths.

Serif and sans Serif fonts

Fonts can be further categorized as :

- ✚ **Serif Fonts** : Serif fonts have fine lines that finish off the main strokes- for example at the bottom of the capital T or at the end of the T's crossbar for Example - **Times New Roman**
- ✚ **Sans Serif Fonts**: The "finishing strokes" called *serifs*, are absent in sans serif fonts. For Example such as Helvetica and Arial are greatly used in headlines, tables etc.

Types of fonts

- It must appear on screen
- It is printed on the printer

To ensure that the fonts are displayed as they will print , do this

1. Click the **Office button** → **word option** → Click the **Advanced**
2. Click on use Draft font check box under **show document content**
3. Click on **Ok**

Formatting characters

Word 2007 enables the under mentioned character formatting option

1. Font ,font style and font size changes
2. Underline option , and color applications
3. Applying inter font effects namely italics ,bold etc.
4. Changing inter character spacing
5. Applying animation effects

Character Formatting using the Font Command

You can print any font in any size from 1 to 1637 points. This corresponds to character heights ranging from approximately 1/72 of an inch to about 22 inches.

To change the font of an existing text, do this

1. Select the text you want to format
2. Click the **HOME** tab → Click on **Font Launcher Dialog** box

Font Dialog Box Is Appear On The Screen

3. Click on the font tab
4. **Do the following option -**
 - ❖ Change Font Name - (Arial, Courier, Times New Roman)
 - ❖ Change Font Style - (Bold, italic, Regular)
 - ❖ Change Font Size - (8,9,10,12)
 - ❖ Underline Style → Click on Drop Down List and select underline below any one style:

Effect	Appearance
None	Characters are not underline
Single	Both Words and space underline
Words Only	Only Words are underline
Double	Both Words and space double underline
Dotted	Both Words and space have a dotted line
Thick	Words are underlined with a Thick line
Dash	Words are underline with a dashed underline
Dot Dot Dash	The words are underlined with a dot dot and dashed line
Wave	The words are underline with wavy line.

5. Select Font Color : (Red, Green, etc)
6. Select Text Effect :

Effect	Appearance
Strikethrough	Straight line through them, as strike
Double Strikethrough	Straight double line through them, as strike
Superscript	Characters are raised above the regular line of type and in a smaller point size. Example 10²

Subscript	Characters are lowered below the regular line of type and in a smaller point size. Example H₂O
Shadow	The Text appears with a shadow
Outline	The Text appears with an outline
Emboss	The Text appear as embossed
Engrave	The Text appears, engraved or imprinted on a page
Small Caps	Character are all uppercase, but initial caps are in the assigned point size and rest of the character are in a slightly smaller point size. SMALL CAPS
All Caps	The characters without actually changing the character themselves ALL CAPS
Hidden	Characters or text in a document which you do not want to be printed. The hidden text is displayed with a dotted underline

Character spacing option

- **To customize the character spacing option ,do this**

In the **Font Dialog** box, click the character spacing tab.

Group	Option	Description
Spacing	Normal	Default spacing for the selected font.
	Expanded	Space between characters are expanded
	Condensed	Space between characters are condensed
By:	1 pt (default), or enter your own amount	Number of points by which text is expanded or condensed or spacing option
Position	Normal	Text is printed on the base line
	Raised	Text is raised above the baseline by the increment you indicate in By box.
By:	3 pt (default), or enter a value	Number of points by which text is raised or lowered for position option.
Kerning for fonts	8 pt(default) or enter a value	Number or points by which specific combinations of characters are spaced. Only true type of Adobe type Manager fonts can be Kerned.

Character formatting using the Ribbon

1. To Change the Font Name (Times New Roman)
Select paragraph → Click on **Home Tab** → Click on **Font List Box** → **Select** from List
2. To Change the Font Size : (14 points)
Select paragraph → Click on **Home Tab** → Click on **Font Size Box** → **Select** from List
3. To Change the Font Style (Bold, italic, Underline)
Select paragraph → Click on **Home Tab** → Click on **Bold/ Italic / Underline**
4. To change the Font Color of Text (Green)
Select paragraph → Click on **Home Tab** → Click on **Font color** Arrow Next → **Select** from List
5. To highlight the font Color of Text : (Gray)
Select paragraph → Click on **Home Tab** → Click on **Highlight Color** Arrow Next → **Select** from List

How to change with Pop Up Toolbar:

1. Select The type **Text Paragraph**
2. Move the **Cursor** Right hand side
3. A Popup bar will be displayed on the screen
4. Click on font Name, Font Size (select Name & Size) , Bold, italic, underline, and color

Applying Character Formatting Using the Keyboard

Format	Shortcut
Bold	Ctrl+B
Italic	Ctrl+I
Single Underline	Ctrl+U
Word Underline	Ctrl+Shift+W
Double Underline	Ctrl+Shift+D
SMALL CAPS	Ctrl+ Shift+K
ALL CAPS	Ctrl+Shift+A
Hidden Text	Ctrl+Shift+H
Superscript	Ctrl+Shift+=
Subscripts	Ctrl+=
Copy Formatting	Ctrl+Shift+C
Past Formatting	Ctrl+Shift+V
Remove Formatting	Ctrl+Spacebar
Change Case of Letter	Shift+F3
Font	Ctrl+Shift+F
Symbol Font	Ctrl+Shift+Q
Point Size	Ctrl+Shift+P
Increase Font Size	Ctrl+Shift+>
Decrease Font Size	Ctrl+Shift+<
Increase font size up one point	Ctrl+]]
Decrease font size down on point	Ctrl+[[
To Copy Text	Ctrl+C
To Paste Text	Ctrl+V

What is Kerning?

- Kerning is the process by which the spacing between the narrow and wide characters is automatically reduced when they appear together. For example, TW. Here the space between the character T and W appears very close.

Control Kerning Automatically

1. Click the **Font Dialog box Launcher**
2. Click the **CHARACTER** spacing tab
3. Click the kerning check box to put the kerning option into operation. The option is on when a check mark (✓) appears in the check box.
4. Click OK to save the setting or Cancel to restore the previous setting.

Removing Character Formatting

1. Select the character whose formatting you wash to remove.

2. Press **Ctrl + Spacebar**.

☞ Word does not remove character formats that are a part of the paragraph style of the text, using Ctrl+spacebar key combinations

Formatting Paragraphs:

A Paragraph can have the following characteristics:

- **Alignment**
- **Indents**
- **Line spacing**
- **space before and after the paragraph**

Alignment: The attribute Alignment of a paragraph refers to the position of the main document text on the page. Different alignment positions in word are given in below table.

Problem No How to change Paragraph Alignment by using Keyboard?	
Left Alignment (Ctrl+L)	Aligns the text at the left margin and makes a zigzag right margin
Right Alignment (Ctrl+R)	Aligns the text at the Right margin and makes a zigzag Left margin
Centre Alignment (Ctrl+E)	Centers text between the left and right margin on the centre line. In This case both the margins are zigzag.
Justify (Ctrl+J)	Aligns the text at both the margins by increasing the spacing between the words

Indents

Indents are the white space added to the margins and thus decreasing the text area for paragraphs. So, when you have a "right margin and you want to add a right indent of 1.0" your text will be printed 2.0" from the right edge of the paper. Once you change the indent, each new paragraph you start by pressing the Enter key will maintain the same indentation setting until you change it.

Problem No How to Increase or Decrease Indent by Using Command?	
--	--

1. Select Sentence or Paragraph
2. Click on **Home** Tab → Click on **Increase / Decrease Indent**

Line Spacing

Line spacing in a paragraph means the amount of space between the lines. Word offers the line spacing options as given Table.

<u>Option</u>	<u>Description</u>
Single spacing	No blank line space appears between the lines of text.
Double spacing	A blank line space appears between the lines of text
1 1/2 spacing	Half the height of one line space of text appears between the lines of text.
Exact line height	Specify the space you want between the lines.

Problem No How to Increase or Decrease Line Spacing by Using Command?	
--	--

1. Select Sentence or Paragraph
2. Click on **Home** Tab → Click & Select on **Line Space**

Problem No How to Increase or Decrease Line Spacing by Using Keyboard?

1. Select Sentence or Paragraph
2. Press **Ctrl +1** (To Single Line Space), **Ctrl+2** (To Double Line Space), **Ctrl+5** (To one and Half Line space)

Formatting Paragraph Using Shortcut Keys

To Format paragraphs Alignment by Using Shortcut Key		
1.	Left	(Ctrl+L
2.	Right	Ctrl+R
3.	Center	Ctrl+E
4.	Justify	Ctrl+J
To indent Paragraph using the Keyboard Shortcut key		
5.	Left Indent	Ctrl+M
6.	Remove Left Indent	Ctrl+Shift+M
7.	Creating Hanging Indent	Ctrl+T
8.	Reducing Hanging Indent	Ctrl+Shift+T
9.	Remove Paragraph Formatting	Ctrl+Q
To Change the Line spacing using the Keyboard Shortcut Key		
10.	To Create Single spaced Lines	Ctrl+1
11.	Create Double Spaced Lines	Ctrl+2
12.	Create One and Half line spaces	Ctrl+5
13.	Add or Remove one line space	Ctrl+0

Applying Borders and Shading:

A border may be a box around a paragraph from all sides. It could be a line that set a paragraph off on one or more sides. A border can include shading and box.

If a group of paragraphs is formatted with a box around them and you

Applying Border to a paragraph:

1. Position the insertion point
2. Click on **Home** Tab → Click on **Boarder And Shading** →
Border and Shading dialog box appear on the screen
3. Choose the **Setting** any one
4. Choose the **Style**
5. Choose the **Border color**
6. Select the **Width**
7. See the Preview
8. Click on Ok Button

Applying Shading to a paragraph:

1. Select the Paragraph
2. Click on **Home** Tab → Click on **Boarder And Shading**
Border and Shading dialog box appear on the screen
3. Click on Shading Tab

4. Click on Fill Drop Down List
5. Select Pattern And Style

Formatting Text and Paragraph Quickly

1. **Select The Text**
2. Click on **Home** Tab → Select **Style** any one such as **Heading 1, heading2 and Tilt**

Student Assignment:

Q1. Define and Explain how to adjust "Line Spacing " and " Paragraph spacing" in word document

Ans : Line spacing : the amount space from the bottom of one line of text to the bottom of the next line . line spacing determine the amount of vertical space between line of text. Microsoft word uses single line spacing by default. The line spacing you select will affect all lines of text in the selected paragraph:

Steps:

1. Select paragraph
2. Click on **Home** Tab → Click on **Paragraph launcher** Button arrow
3. Select Line spacing : Single, Double, 1 1/2 , Multiple

Paragraph Spacing : The definition of term paragraph in English language is " a series of related sentence". In Microsoft word, a paragraph is a distinct unit of information that has its own formatting characteristics such as alignment, spacing and styles.

1. Select the paragraph
2. Click on Home Tab → Click on **Paragraph launcher** Button arrow
3. Choose Indent and spacing Tab → Select Space Required Before or After the paragraph
4. Click on **Ok** Button

Chapter -10 Document Formatting

INTRODUCTION

- Formatting a document in Word 2007 is the process of changing the appearance of a document as a whole .It involves the length of the printed page, left margin, right margin, etc. All such procedure is explained in this Chapter.

Working with section

Organizing documents in section makes it possible to change header and footer for easy reference .Section make it possible to customize page number within chapter. Pages within chapter might contain chapter-related numbers that restart at the beginning of each chapter (1-1,2-1,and so on).You can also use different page-numbering styles in each section of a document.

Problem No1 How To insert a section break, do this

1. Position the insertion point where you want to the section break to they occur.
2. In the **Page Layout** tab of Page Setup group, in the top right corner
3. Click **Insert Page and Section Break** command.
4. Choose an option from the following:

Option	Description
Next page	This selection would start the new section on a new page.
Even page	This section would start a section on an even numbered page (i.e. left hand page)
Continuous	This section would Insert a section break without starting it on a new page.
Odd page	This selection would start a section on an odd numbered page (i.e. on the right hand page).

A section insertion places a double-dotted, non printing line containing the words *End of section* at the insertion point on your screen

Problem No2 Deleting Section Breaks

Selection a section break and press the **Backspace** or **Delete** key . Text after the removed section break will take on the characteristic of the preceding text .It may take a moment for Word 2007 to reformat and repaginate the document.

PAGE SETUP OPTION

Page layout option includes:

- Margin
- Vertical Alignment on the page
- Page and paragraph breaks
- Section breaks
- Page numbers
- Headers and footers
- Paper size
- Orientation and the paper source
- **Document margins and orientation**

The default margins of word 2007 are 1 inch at the top and bottom each and 1 inch on the left and right.

- **Note** that in outline view you do not see the margins. However you can see the space between them in print layout view and you can see the page as it will print. Always select the print layout view if you want to see headers, footer, page number, footnotes etc.

Problem No 3 How to set margins with the page setup command, do this

1. Click on **Page Layout**
2. Click the **Right Corner Arrow** → **Page Setup**. The page setup dialog box appears.
3. Click the **Margins Tab** property sheet as shown in.....

Option	Description
Top:	Select or type out the desired margin from the top of the page
Bottom:	Select or type out the desired margin from the bottom of the page
Left:	Select or type out the desired margin from the left of the page
Right:	Select or type out the desired margin from the right of the page
Gutter	Select or type of the gutter space as required Gutter is the extra space added to the margins to leave the space for binding the document
Orientation	Select Between Portrait (Vertical) or Landscape (Horizontal) page settings

4. in the pages Area, Select the **Multiple Pages List - Mirrer Margins**
5. In the **Apply To:** Choose the Portion of the document from where you want to apply new settings.
----- **SET Paper Size** -----
6. Click on **Paper Tab**
7. Select Paper Size From Drop Down List : **Letter**
8. Click on **Ok** Button

Problem No4. How To set margins in print preview do this:

1. If the rulers are not visible, Click the ruler icon
2. Position the mouse pointer on a ruler's edge.
3. The pointer will change to a two-headed arrow.
4. Drag pointer to adjust the margin.

Paper size and Page Orientation

You can also select one of the two types of page orientations namely portrait (vertical) and Landscape (Horizontal). You can change the paper size and page orientation for a section or for the entire document.

Problem No5. How to set Paper Size and Page Orientation by Using Page Layout

1. Click on Page Layout Tab
2. Click on **Size Arrow** → Select **Paper Size**
3. Click On **Orientation** → Select Any one (**Portrait** or **Landscape**)

Page Breaks: page Breaks the places in your document where one page would end and a new page would begging. You can see page breaks in all views prior to printing.

Problem No 6 How to Inserting page breaks.....

1. Put cursor you want to page break.
2. Click the **INSERT** Tab
3. Click On **page break**.

Problem No 7 Moving and deleting manually inserted page breaks.

1. Select the page break as you select text.
2. Now press the **DELETE** key. The pages break in removed.

Headers and footers

Header and footer is the text or graphics which is printed at the top and bottom of every page respectively in a document. A header is printed in the top margin whereas footer is printed in the bottom margin.

Problem No 8 How to Inserting header and footer

1. Click the **INSERT** tab
2. Click **Header & Footer** group
3. Select **Header / Footer** Style gallery
4. Type The Text Header / Footer and company logo
5. Click on Close **Header/ Footer**.

Inserting and formatting the page numbers

You can add page numbers, which are associated with headers and footers, to the top, the bottom or in the margins of documents

Problem No 9 How to Inserting Page Numbers & Format Number

1. Click on **INSERT** Tab
2. Click on Page Number from Header/ Footer Group
3. Select Page Number Style.
4. Click on Format Page Number → Select Page Number Style.

Setting up columns

Word 2007 enables you to create columns of equal or unequal width. If need be, you can include a vertical line between columns. You can include different numbers or styles of column different section of your document, as is used in a magazine.

- Word 2007 determines how many columns you can have on a page based on following three factors:
 - page width
 - Margin width
 - Size and spacing of columns.

➤ In word 2007 columns cannot be less than .5" (Half an inch) wide. Columns have the length of the current section or of the current page if there are no sections.

Problem No 10 How to Creating Column of Unequal Width

1. Click on Page Layout Tab
2. Click on **Column** arrow from Page Setup Group
3. Click on **Customize column**
4. Select And click on **This point to Forward**
5. Select **Column Number**
6. Click on **Line Between** (if you wish)
7. Click on **Ok** button

Inserting Footnotes and Endnotes

Word 2007 has footnote feature that enable you to enter, edit and view footnotes/ endnotes in a variety of formats. The only difference between footnotes and endnotes is that, the footnotes appear at the bottom of page and endnotes appear at the end of the section or document.

Problem No 11 How to Insert Footnote/Endnote in document

1. Place cursor on word which you want to refer note
2. Click on **Reference** Tab → Click on **Insert Footnote / Endnote**
 - Or Press **Alt+Ctrl+F** keys together for Footnote
 - Or Press **Alt+Ctrl+D** keys together for Endnote

Inserting Symbols and Equations:

Some documents require characters not found on a standard keyboard. These characters might include signs such as copyright © or registered ® symbols. You want to add arrow (such as $\uparrow \rightarrow \downarrow \leftarrow$). You can insert mathematical symbol such as $4\sqrt{12}$ $\frac{1}{2\pi}$ \sqrt{xy} $\sqrt{16}$ is a called MS Reference Spatiality.

Problem No 12 How to Insert Symbols in document

1. Put the cursor where you want to add symbol
2. Click on **insert Tab** → Symbol
Symbol Dialog Box is displayed on the screen
3. Select Font from Drop Down List
4. Select Symbol and click on **Insert** Button → Click on **Close** button

Problem No 13 How to Insert Equation in document

1. Put the cursor where you want to add symbol
2. Click on Insert Tab → Equation → insert New Equation
3. Type **C** then on the **Design** Contextual tab
4. Select π symbol
5. Type * singh
6. Type D here

$$C = \pi * d$$

Chapter -11 Document & Template Wizard

INTRODUCTION:

A template is a form of document specific type that creates a copy of itself when you open it. A template is a file that stores text, characters and paragraphs styles, page formatting and elements such as graphics for use as a pattern in creating other documents. template can be a .dotx, .dotm and dot file.

Working with a Template:

Word 2007 comes with a set of predefined templates that you can use to create documents. Unless you specify it all new documents are based on the normal document template. Normal template defines a plain style such as paragraph styles for regular text paragraphs a title and different levels of headings. The styles from the normal template appear in the styles gallery on the home tab when you create a new blank document.

Problem No1. How to Create A New Template

1. Click on **Office** Button → **New** Option → **New document Dialog Box is displayed on the screen.**
2. Click on **Installed Template**
3. Select any one style such as **oriel letter**
4. Click on **Create** Button
5. Edit and Type format
6. Click on **Save** Button from Quick access toolbar
7. Type The Name
8. Click on **Save** Button

Using wizards

In the previous version of word 2007, a wizard is a part of a program that guides you through certain steps for example envelope wizard letter wizard etc these wizards are replaced by word 2007 templates available by office online.

Creating newsletter wizard

The templates of word 2007 are available on Microsoft office online and can easily be customized to make an effective newsletter that suits your needs. It takes you step-by-step the whole process of creating a letter. For example, newsletter template.

Problem No2. How to Create Wizard

1. Click on **Office** Button → **New** Option →
2. In the Search Field of Template Window type **Wizard**
3. The available results will appear in center pane for example , newsletter Letter Wizard, Calendar Wizard, Resume Wizard etc.

4. Select the desired Wizard
5. Click on Download button
6. Click Next >
7. The second step to select the desired **Style & color** of newsletter
8. Click Next >
9. The Third step to Title & Contents of Newsletter
10. Click Next >
11. The fourth steps to select Mailing Level
12. Click Next>
13. The fifth steps to click **Finish** Button
14. Now you can select and apply the desired style such as Heading, Body text, folio etc.
15. After completing the letter, click Office button → Save
16. Save the file as Word template
17. The download template file save in the My templates folder
18. Whenever you want to open the template file, click the **Office** button → New →
19. Under Template click **My Template**
20. Select The desired downloaded template file and make changes

Student Assignment

Make a template for the bio – data with the following format

Bio Data

Name :
Father's Name :
Date of Birth :
Address :
Educational Qualification :

Sr No	Qualification	Board	Percentage

Work Experience:

Chapter -12 Using Table & Chart

12.1 INTRODUCTION

Word 2007 enables you to create tables and charts in a document. In this chapter we will discuss how to create charts and tabular matter using tables and tabs.

☞ We use the table features in built in word 2007. it offers choice for creating text in the form of table.

12.2 Working with tables

You should use tables to create documents, such as forms financial reports, catalogs and bio data. Tables consist of horizontal rows and vertical column. You type in the areas called cells formed by intersection of rows and columns. Cells can contain text numbers or graphics.

You can even control the Size, shape, and appearance of the cells and use border and shading features. You can insert and delete rows and column in a table

☞ A new feature called the table wizard helps you to automate table creation.

Problem No1 → How To Creating A Table Using Table Option

1. Put Cursor In Document
2. Click on **Insert Tab → Table → Insert Table**
INSERT TABLE DIALOG BOX IS DISPLAYED ON THE SCREEN
3. Enter **No of Column & Rows** You Desire
4. Click on **OK** Button

Problem No2 → How To Move Within Table Using The Keyboard

- To Move Right and Down Cell Press **TAB** key
- To Move Left or Previous Cell Press **Shift + Tab** Key

12.3 Selecting Text in a table

You can select characters words and other items in a table cell using mouse or keyboard. In addition word 2007 provides tables-specific selection tools that allow you to choose cell, entire rows, columns or areas as per your need.

Problem No3 → How to Select Cell by using Mouse & Command

By Using Mouse

- Click on Cell Selection Bar (area between text and cell edge)

By Using Command

- Click on Cell → Click On Layout Tab → Select → Select Cell

Problem No4 → How to Select Column by using Mouse & Command

By Using Mouse

- Move the Mouse Pointer to the area at the top of a column called the column selection bar & Click on Column Heading

By Using Command

- Click on Cell → Click On Layout Tab → Select → Select Column

Problem No5 → How to Select Rows by using Mouse & Command

By Using Mouse

- By clicking cell selection Bar

By Using Command

- Click on Cell → Click On **Layout** Tab → **Select** → Select Rows

Problem No 6 → Selecting Adjacent Groups of Cells

1. Drag through the cells or click in one cell and press Shift + Click in the others.

Problem No 7 → Selecting the whole table

1. Press down the alt key and double click anywhere in the table.

Problem No 8 → How To Insert Row, Column & Cell**Method 1st:**

1. Put the cursor in cell
2. Right click on Cell → Context Menu Displayed → **Insert** → Select **Row/ Column/ Cell**

Method 2nd:

1. Put the cursor in cell
2. Click on **Layout** Tab → Click on **Insert** Option → Select **Row/Column/ Cell**

Problem No 9 → How To Change Column Width

1. The pointer will change shape to a double arrow. Drag the column width maker. Watch the dotted line as well as the ruler setting then release the mouse button when it reaches the desired width.
2. Or click table column width scroll box, to change the table column width in the cell size.
 - a. If you hold down the (Shift) key while dragging the column to the right does not change size while the table's overall width increases.
 - b. If you hold down (Ctrl) key while dragging mouse all columns to the right changes size but the tables overall width will not change. Thus the width of the columns on the rights will only change.

Problem No 10 → How To Merge Cell & Split Cell**➤ To Merge Cells, do this**

1. Select the cells
2. Click on Layout Tab → Click on Merge Cell

➤ To Split (Unmerge) cells, do this:

1. Click On Cell
2. Click on Layout Tab → Click on Split Cell
3. Type on Number of column / Row

Problem No 11 → Convert text to a table & Table To Text**➤ To convert text to table do this:**

1. Select the text that you want to convert into a table
2. Click inserts tab → Table, pill-down menu appears
3. Click the convert text to table Command
4. In convert text to table dialog box, in the separate text at section select the radio button such as paragraph tabs or commas.

5. You must choose the option that corresponds to the way you divided you text
 6. Click OK. Word 2007 converts to converts into a table.
- **To convert table to text, do this:**
1. Select the **Table** that you want to convert into a text.
 2. Click the **Layout** table to text... command
 3. In convert table to text dialog box in the separate text at section select the radio button such as paragraphs tabs or commas.
 4. Click **OK**. Word 2007 converts your table into text.

Problem No 12 → **FORMATTING TABLES STYLES**

With word 2007, you can quickly get started by creating a quick table, a preformatted table with sample data that you can customize it.

1. **TO FORMAT A TABLES STYLE, DO THIS:**
2. **SELECT THE ENTIRE TABLE** by pressing at the top corner of the arrow in the table or press (Alt + S) on the numeric keypad with (Num lock) off.
3. Click **DESIGN** contextual tab. In the **Table Style** options group, click or clear **CHECK BOXES, SUCH AS HEADER ROW OR BANDED COLUMNS**.
4. Click the more buttons on the table style group.
5. Click a table **Desired Style**. Word 2007 format your table according to the style you select.

Problem No 13 → **TO SORT A TABLE**

- a. **Position the Insertion Point** in the table you wish to sort. Alternatively, select the cells you want to sort.
- b. Click the **Layout** contextual tab → click on **SORT** in the Data group.
The sort dialog box appears...
 - a. If you have labels at the top of your tables then in the my list has section **click header row radio button**
 - b. There will be up to three drop-down lists containing the column labels or column numbers (1,2, and 3)
 - c. Specify the **Sort Order** by choosing the desired columns for each sort level.
 - d. Choose a **Sort Order** for each column.
- c. Specify if the data in each column are text numbers or date by choose from the drop-down type: lists.
- d. Select either the ascending or descending radio button.
- e. Click OK. Word 2007 will sort the table based on the data n the column you selected.

Problem No 14 → **Adding Borders To A Table**

1. Borders can emphasize parts of your table such as particular row or column. To add a border to a table you need to define the following:
 - Where you want the border to appear
 - **Border color**
 - **Border line style**
 - **Border line thickness**
2. **TO ADD A BORDER, DO THIS:**
 - Move the cursor to the row, column cell or table where you want to add borders.
 - Click design contextual tab of table styles group, click pen color. As shown in the
 - Click a color for your border
 - Click the line style list box.
 - Click a desired line style.

- Click the line weight list box
- Click a desired line weight

Problem No 15 → SETTING CUSTOM TAB STOPS

1. With the ruler in view click the button at the left edge of the horizontal ruler repeatedly until it shows the icon for the tab stop you want to insert. Tabs are left right decimal and center.
 2. Click on the ruler where you want to position a tab stop. If you make a mistake drag the stop off the ruler and try again
 3. When you type press the tab key to move the insertion point to the new tab position.
- **TO MOVE A TAB STOP DO THIS:**
- To set tabs using the tabs dialog box do this:
 1. Position the **INSERTION POINT** in paragraph for which you want to insert tab.
 2. Click the **Home** tab. Click **Paragraph Launcher**.
 3. In paragraph dialog box, click **Tabs...** button. **Tab dialog box**
 4. In the **TAB STOP** position box enter the position where you want to insert the tab stop.
 5. In the alignment area select the type of tab you want to insert.

To insert a chart using data in word 2007 document do this:

1. Move the insertion point where you want where you want to insert a hart
 2. Click the **INSERT TAB** in the **ILLUSTRATIONS** group, click the **Chart** button.
- The insert chart dialog box opens. In the gallery on the right under column choose desired type of column you want. Click the OK.

Assignment No1:

Insert a table. The table should have 5 columns. The auto behavior should be 'Fixed column width'. The following report has to be created in the table

Sr.No	Name	Basic Pay	Designation	Department
1	Rahul Roy	10000/-	MD	Marketing
2	Ritu Garg	12000/-	AD	Sales
3	Mohit	8000/-	Manager	Sales
4	Rakesh	9000/-	Senior Manager	HR

- Heading should have font Size of 18, color should be blue and font should be bold.
- The data should have a font size of 12, color should be red and font should be italic.
- Insert a new row between 3 & 4 and type the data and reorder the Sr. No column.

Take Help of Faculty & Type Tips Here:

Assignment No2:

Create a table in word as shown below:

Roll No	Name	Marks in Physics	Marks in Chemistry	Total marks
1	Ritu	80	70	
2	Rohit	70	80	

3	Amit	60	50	
4	Rakesh	40	60	
5	Teena	45	70	
6	Garima	80	80	

Do the following:

- In the total marks column, entries should be calculated using the **formulas** and it is the sum of marks in physics and marks in chemistry
- Insert a new row at the end of the table and also find grand total using formula
- Sort the table based on total marks
- The data and heading should be center aligned
- Heading should be bold and underlined

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Chapter -13 Page Setup & Printing

Introduction

It is always advisable to save a file before you print it. Occasionally printing problems can lock up your computer and you might lose any unsaved changes if you are forced to reboot the pc (Personal computer)

Previewing and printing a document

Before you print a document you may want to check how it will look on paper by previewing it. Previewing is essential for multipage document but is helpful even for one page document also. To preview a document you click the office button point to print and then click print preview. This view shows exactly how each page of the document will look when printed.

Setting printer options

Windows operating system manages details of setting up a printer. However a window leaves three tasks for use:

1. **Selecting The Printer** you want to use in word 2007
 2. **Installing the Printer** if not available in the list of windows printers.
 3. Changing the **Printer Setup** for special printing needs
- ☞ Most of the printer options are set by word 2007 depending upon the printer selected by you. All the same many options are available to you so that you can customize the printing options as per your requirement.

The printing options in word 2007 can be classified in two categories.

➤ To set printer specific options do this:

- Click the **OFFICE** button and choose print or press (Ctrl + Shift +F12) keys together.
- Select a **PRINTER** from the name: drop-down list
- Click the **PROPERTIES** button in the print dialog box.
- **PRINTING** the current document

TO PRINT A COPY OF THE DOCUMENT DO THIS-

1. Open the document you want to print.
 2. Click the **FILE** menu and choose **Print** .. Or press Ctrl + Shift+F2 keys. The print dialog box appears,.
 3. Click **Ok**.
- Note : The print dialog box closes and a print icon in the status bar displays the process of the print job.

TO CANCEL PRINTING DO THIS:

1. While the print icon is displayed press **ESC**
2. When the printer icon appears in the taskbar, you can **Double-Click** it to open the printer folder.
3. Select the **Document** you want to **Cancel** printing and then choose document, cancel printing. If the printer icon is no longer displayed in the windows taskbar, word may have already sent the print job to the printer.

USING PRINT PREVIEW FEATURE

- To preview the document do this:
 - Click the **FILE MENU** and choose the **PRINT PREVIEW** or click The **Print Preview** button on the standard toolbar. The screen changes to the one as seen in.....

The various elements an option available in the print preview mode are explained in1 ...

In print preview you also have access to the normal page layout and outline icons at the left corner of the horizontal scroll bar. Clicking any of these buttons closes the preview screen and displays the document in the view ode you selected.

To print only a document’s hidden information without printing the document do this:

1. Click the **FILE** menu and choose **PRINT**.
2. Click the **Tools** menu and choose options.... The options dialog box appears click the tab.
3. In include with document section select one of the options
4. Click OK.

Printing document to a file

- The feature enables you to print a document from a printer connected to a computer that does not have word installed. You can print the document to a printer file and take this document as a printer file with you to be printed later.

☞ The printer file you create must be made for the printer you will actually print on.

1. To print to a file ensure that word is setup for the printer to be used to print the file do this:
2. Click the **FILE** and choose **print**
3. Select the **Print To File** Option
4. Click ok.
The print to file dialog box appears.
5. Change to the **Folder** where you want to **SAVE** the printer file.
6. In the **File Name** box, type the name of the file to contain the document.
7. Then choose **OK**.

☞ When you want to resume printing to your printer deselect the print to file option in the print dialog box.

Shrinking a document to fit a page

☞ You can undo the effects of shrinking if you lick the Undo tool. However after you save the document you cannot undo shrink to fit. **Assignment:**

Use the document earlier saved and performs the page setting as follows:

Top Margin	1.3”	Gutter Margin	1.2”	Orientation	Landscape
Bottom Margin	1.4”	Header	0.7”		
Left Margin	1.30”	Footer	0.7”		
Right Margin	1.30”	Paper Size	executive		

Chapter- 14 Using Mail Merge Document

Using mail merge

Mail merge is a mass-mailing facility using e-mail methods or otherwise that takes names address and pertinent facts about recipient and merges the information into the form of a letter.

Data source and main document

When you open the main document in word 2007 it brings with it the associated data source with which it was saved last. If you use a different main document, then remember to attach it with a new data source that you may want to use.

Creating a Mail Merged letter

The best way to learn how to create and print a merged document is to consider a practical example. This is described in the following sections.

1. Creating a document for mail merge
2. For mail merge you need to do the following:
 - ✚ Create a data source
 - ✚ Create main document
 - ✚ Insert fields into the main document
 - ✚ Check for design and data entry errors
 - ✚ Merge the data source document and the main document band finally print merged document.

Starting mail merge

1. TO USE THE MAIL MERGE HELPER DO THIS:

- ✓ FIRST CREATE A **BLANK DOCUMENT**.
- ✓ Click the **Mailing Tabs** in the **Start Mail Merge Group** and click down pointing arrow. A list appears as seen in figure.

2. CREATING MAIN DOCUMENT, DO THIS

- ✓ Click the **Mailings Tab** in the **Start Mail Merge Group** and click down pointing arrow and select **Step Be Step Mail Merge Wizard...**
- ✓ On the right hand side the **Mail Merge Task Pane Box** appears as seen in figure 14.2 showing 1 of the wizard's six steps.

3. Steps involved in mail merge

1. **Open or Create A Main Document**, which contains the generic information that you want to repeat in each form letter, mailing label envelopes or catalog.
2. **Open Or Create Data Source** which contains the data that varies in the merged document.

3. In the mail document **Insert Merge Fields**, which are placeholders that tell Microsoft word where to insert data from the data source?
4. **Merge Data From The Data Source Into The Main Document.** Each row in the data source produces an individual form letter mailing label or catalog item. You can send the merged document directly to a printer or e-mail addresses or fax numbers. Or you can collect the merged documents into a new document so you can review and print them later.

5. Printing The Merged Letters

If you want to print the letters make sure that the printer is switched on and is in ready to print mode. Then click the print.... Under merge, Ok click the finish & merge group. Click down pointing arrow and choose Print document. The Merge to Printer dialog box appears. Select the records and Click OK.

Assignment:

Below is given a letter and some addresses, this letter is to be sent to all these addresses so use mail merge option to do so

Addresses are :

- 1) Amit
H.No 424 Sector 8D
Chandigarh
- 2) Rohit
H.No 4444 Sector 125C
Chandigarh
- 3) Jyoti
H.No 550, Sector 16A
Chandigarh

The Letter is :

To
<<Name>>
<<Address>>
Dear <<Name>>

You are called for an interview on the <<Date>> at 9:00 A.M with your original documents at Shyine Hotel Delhi.

Your Sincerely
ABC Limited
Phase – 7
Mohali

Solution:

1. Open Blank document in word
2. Click on Mailing Tab → Click on Start Mail Merge Arrow from Start Mail Merge Group

3. Click on Step By Step Mail Merge Wizard from List
Mail Merge Task Pane is displayed on Right Hand Screen
 1. **Select Document Type -**
Q. what type of document are you working on ?
Ans – Select Letter & Click on Next(Starting Document)
 2. **Select Starting Document**
Q. How do you want to setup your letter ?
Ans – Select Use the current Document & Click on Next (Select Recipients)
 3. **Select Recipient:**
Ans: - Select Type a new List → Click On Create Button
The New Address List Dialog Box Is Displayed On The Screen
To Delete Some Field Click on **Customize Button**
Select Field and click on **Delete Button**
Click On **Ok** Button
Type The Entry Field → Click on Ok Button → Click o Save Button → Click on Ok Button
Click on **Next (Write your Letter)**
 4. **Write your Letter**
if you have not already done so , write your letter now.
Put the cursor on document Click on Address Block → Click on Nex button (Preview your Letters)
 5. **Preview your Letter Click on Next (Complete the Merge)**
 6. **Click on Print or Edit Individual Letter**

Working with graphics

Graphics can include a wide variety of images including pictures and drawing objects. Pictures and graphics that have been created outside word 2007 namely a scanned photograph, clip art that are created within word a shape a diagram a line or word art text. You can use the buttons on the insert tab to insert pictures and draw different kinds of object. Word 2007 lets you draw, place, resize, reposition and format all above type of graphics.



Section IIIrd Advance Excel

Chapter- 15 Introduction TO Excel

Electronic Spreadsheet

- An Electronic spreadsheet application accept data value and marks relationship between the data value in a tabular format consisting of rows and columns. It also manipulates data in a desired format the first spreadsheet available for the PC was VisiCalc which was a best seller. VisiCalc was followed by Lotus 1-23. Finally, the largest selling spreadsheet program is Excel 2007. Electronic spreadsheet is a software package which accept data in a tabular form (rows & columns), shows data in a tabular form and server many function to perform calculations.

Spreadsheet Terminology

- When you are a Spreadsheet package you have to know some Spreadsheet terminology. Some such terms are given in the following paragraphs.

Workbook

- A workbook is a collection of many worksheet. In a single workbook you can store information in an organized manner. By default a workbook open with three worksheet and it can contain a maximum of 255 worksheets.

Worksheet

- A worksheet is a sheet made up of rows and column. It is used for planning a project or financial document of an organization. Worksheet refers to the actual document you create by using the spreadsheet refers to the actual document is always stored in a workbook.

Chart sheet

- Chart sheet is a separate sheet in a workbook that contains only graphs or charts. It is useful when you want to see a chart or tabular data separated from other type of data.

Row

- A **Row** is a **Horizontal** block of cells that runs through the entire width of the worksheet. The rows are numbered from top to bottom along the left edge of the worksheet. The first row is numbered **1**, the second **2**, and so on. There can be a maximum of **1,048,576 Row** in an excel 2007 worksheet.

Column

- A **Column** is a **vertical** block of cells that runs through the entire worksheet. A worksheet contains 16,384(A to XFD) columns. The first column is **A**, the second is **B** and so on until you reach **Z**. then comes column **AA** through **XFD** is the last (or rightmost) column of the worksheet, **XFD** is the **16,384th** column.

Cell

- A cell is the intersection of row and a column. For Ex, the uppermost cell is A1 (column A, row 1). Cell G9 is the intersection of column G, row 9. when you select a cell by clicking it the with the mouse, or moving to it using the keyboard, it becomes the active cell.

Formula

- Formula are equation that perform calculation on values in you worksheet. It is an order of values, names, cell references, functions and operators in a cell that together give a new values. A formula always begins with=(equal) sign.

Function

➤ Function are predefined formulas that takes value or value, perform complex calculation by using a specific value in a particular other to give a result. Functions are used to simplify the formulas that perform lengthy or complex calculations.

Working with Spreadsheet

- In Excel 2007, each workbook can contain many worksheets. This sheet may also contain charts, macros, etc. sheet may contain different type of information but all data or information is related to each other.
- Generally, spreadsheet is a software tool and worksheet is a work file created with spreadsheet software. But sometimes, worksheet is also called a spreadsheet.

Advantages of Spreadsheet

1. In Excel 2007, many built-in functions do the complex calculations easily.
2. Large volume of data can be handled easily.
3. A graphical representation of data is possible. With the help of graph and charts data can be interpreted easily.
4. Useful information can be imported or exported form/to other software package such as Word and PowerPoint.
5. If entire are changed, then formulas automatically calculate the new results.

Disadvantages of Spreadsheet

1. It requires very large memory of a perform complicated calculations and to plot graphs.
2. It has limit number of row and column in one worksheet. If user has more data to enter he has to shift data in another worksheet that may create confusion.
3. It requires skilled user because small mistake in formula will give absurd results.

Applications of spreadsheet

- Spreadsheet are mainly used to solve complex calculation easily. They can be used for graphical representation of large volume of data so, spreadsheet are used in the following applications:
 1. Budgeting and forecasting.
 2. Scientific research.
 3. Financial accounting.
 4. Income tax and sales tax applications.
 5. Annual reports.
 6. Portfolio analysis.
 7. Determine the break even points in sales.
 8. sales and purchases application or in business applications.
 9. Statistical analysis of database.
 10. Job estimation and cost accounting.

STARTING Excel 2007

- **To start Excel 2007, do this**

Click the **Start** button on the taskbar → All **Program** → Click **Microsoft Office** and then **Excel 2007**.

Title Bar

- At the top of an Excel 2007 window, there is the title bar. The left edge of this bar has MS-Office button next to which the name of the open document is displayed. On the right edge of the title bar, the minimize, restore / maximize and button are placed.

Application Window

- The window within which Excel 2007 runs.

Quick Access Toolbar

- The button on the quick access toolbar represent a command or a procedure.

Workbook Window

- A window within the Excel 2007 application window in which a worksheet, chart, or dialog box is shown.

MS-Office Button

- This button is located in the upper-left corner of the Excel 2007 window. It opens the menu containing commands like New, Open, Save, Save As, Share, Print, etc.

Active Workbook

- The Excel 2007 workbook window that accepts entries and commands.

Inactive Workbook

- A window that contains Excel 2007 information. It is not affected by commands. Such a window has a gray title bar and is behind the active workbook window.

Ribbon

- Ribbon is displayed just below the title bar. In Ribbon, Commands are organized in logical groups, which are collected together under tabs. You can hide the Ribbon by double-clicking the active tab. Different type of Tabs of Tabs are available in the Ribbon of Excel 2007.

Home Tab

- It contains the button related to the worksheet contents.

Insert Tab

- It contains the button related to the item which you can insert in your worksheet.

Page Layout Tab

- It includes the button related to the appearance of the worksheet.

Formula Tab

- It contains the button related to function.

Data Tab

- It contains the button related to data.

Review Tab

- It contains the button related to security and accurate data.

View Tab

- It contains the button related to view of the worksheet i.e. how you want to view the worksheet.

Scroll Bar

- The scroll bar appears at the left for vertical scrolling and at the bottom right for horizontal scroll bar. It splits the sheet horizontally.

Split Bar

- The split bar is located at the top of the vertical scroll bar and to the right of the horizontal scroll bar. Double click the split button on the

Sheet Tabs

- A tab is near to the button of a workbook that displays the name of a sheet. Click the sheet tab to move to the next sheet. To display the shortcut menu, right click the sheet tab. To scroll through the sheet tabs, use the tab scrolling button.

Name Box

- The name box is at the left end of the formula bar. It identifies the selected cell, chart item or drawing object.

Formula Bar

- The formula bar displays the left constant value or formula used in the active cell. The formula bar is also used for editing the cell contents.

Shortcut Menus

- Shortcut menus are meant to display frequently used commands relating to the selected item or object.

Screen Tips

- Screen tips show the name of the command button shown in ribbon. Screen tips appear as soon as you position the mouse pointer on the toolbar button.

Status Bar

- Status bar appears at the bottom of the Excel 2007 window. It displays information regarding a selected command or an operation in progress

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Chapter- 16

INTRODUCTION

Excel 2007 provides various methods of moving data and selecting specific data in workbooks and worksheets. Excel 2007 has various method of moving data and selecting specific data in workbook and worksheet.

MOVING BETWEEN WORKBOOKS

2.1 SWITCHING BETWEEN WORKBOOK'S WINDOW

To switch between the open workbook windows, do this

Click on **VIEW** tab in the window group → click on **ARROW NEXT** Switch window → Select your workbook

Note: it will work when two or more workbook is opened

2.2 CHANGING DEFAULT NUMBER OF SHEETS IN NEW WORKBOOKS

1. Click **MS OFFICE** Button → Click **EXCEL OPTION**
2. Click on **POPULAR** tab from Excel option dialog box
3. Enter Number of Worksheet [5] in **include this many sheets spinner box**
4. Click on **OK** Button

2.3 INSERTING AND DELETING SHEETS

If you revise your workbook, you will want to insert / delete sheet from the workbook

How will you insert a sheet in a work book?

Method 1st :

1. Right Click on **SHEET** tab → click on **INSERT** → **WORKBOOK** → click on **OK**
Or
2. Click on **NEW SHEET** Icon (Near by Sheet Tab)

Method 2nd :

1. Click on **SHEET** Tab → Click on **HOME** Tab → Click on **INSERT(V)** → **INSERT SHEET**

Method 3rd

1. To Insert worksheet press → Shift+F11 key

How will you delete a sheet from a work book?

Method 1st :

3. Right Click on **SHEET** tab → click on **DELETE**

Method 2nd :

2. Click on **SHEET** Tab → Click on **HOME** Tab → click on **DELETE** → **DELETE SHEET**

2.4 COPYING AND MOVING WORKSHEETS WITHIN A WORKBOOK

1. Select Sheet you want to Copy or Move
2. TO Copy -: Drag Sheet with Ctrl Key and release to New Location
3. To Move -: Drag Sheet and release to New location

2.5 COPYING AND MOVING WORKSHEETS BETWEEN A WORKBOOK

1. Open Both work (Source and Destination)
2. Click on **VIEW** Tab → click on **Arrange All** → click on **Tiled** (option) → Click on Ok

3. Select Sheet you want to Copy or Move
4. TO Copy -: Drag Sheet with Ctrl Key and release to New Location
5. To Move -: Drag Sheet and release to New location

2.6 RENAMING A SHEET

Method 1st :

1. Right Click on **SHEET** tab → click on **RENAME** → **TYPE NAME(BRANCH)**

Method 2nd :

2. Click on **SHEET** Tab → Click on **HOME** Tab → Click on **FORMAT(V)** → **RENAME SHEET** → **TYPE NAME OF SHEET**

2.7 GROUPING SHEETS FOR EDITING, FORMATTING AND REORGANIZING

You can perform operation on several sheets at a time by creating a group selection. This group selection is useful to edit or format a group of sheets identically or to reorganize a group of sheet.

TO SELECT A GROUP OF ADJACENT SHEET, DO THIS

1. Select the **First Sheet Tab**
2. Press and hold down **SHIFT** key → click on the last sheet

TO SELECT A GROUP OF NON ADJACENT SHEET, DO THIS

1. Select the **First Sheet Tab**
2. Press and hold down **CTRL** key → click on the last sheet

Note: when you select a group sheet, the word | Group | is displayed on the title bar.

2.8 CONTROLLING THE DISPLAY OF SHEET TABS

Click on **Ms-Office Button** → **Excel Option** → **Advance** → Click on the **Show Sheet Tab** check box → Click on **Ok** Button

SCROLLING WITH MOUSE:

To scrolling the window with the mouse, use the scroll bars located at the right and bottom of each worksheet.

SCROLLING WITH KEYBOARD

Key	Movement
↑	Scroll up one Row
↓	Scroll down one Row
←	Scroll Left one Column
→	Scroll Right one Column
PgUp	Scroll up one Screen
PgDn	Scroll Down One Screen
Alt+PgUp	Scroll Right One Window
Alt+PgDn	Scroll Left one Window
Home	Moves to the beginning of the row
Ctrl+Home	Moves to the beginning of the worksheet

SELECTING CELLS AND RANGE OF CELLS

Before you can enter, edit or modify the contents of a cell, you must select or activate the cell you want to change.

- **To select a cell-using mouse, do this**

- Move the mouse pointer over the cell and click the cell

➤ **To select a cell using keyboard, do this**

↑	Moves the active cell up one cell
↓	Moves the active cell Down one cell
→	Moves the active cell Right one cell
←	Moves the active cell Left one cell
Tab	Enter Data and moves the active cell right
Shift+Tab	Enter Data and moves the active cell Left
Enter	Enter Data and moves the active cell down
Shift+Enter	Enter Data and moves the active cell Up
Ctrl+ Arrow	Move the active cell in the direction indicated by arrow until the edge of a block of data is reached
Home	Move the active to column A of the current Row
Ctrl+Home	Move the active cell to the first cell in the worksheet (cell A1)
Ctrl+ End	Move the active cell to the last cell in the used portion of the worksheet
PgUp	Move the active cell up one full window
PgDn	Move the active cell down one full window
Alt+PgUp	Moves the active cell one screen left
Alt+PgDn	Moves the active cell one screen Right

USING GO TO COMMAND (F5 KEY)

The **Go To** Command moves you to any cell or address in the sheet you request. If you choose a named cell or range of cells, with Go To , the entire range is selected.

If you want to see the active cell, but it is not visible in the window, press **Ctrl+Backspace** key together.

How do you select a large range of cells using:

- a) Go To Command?
- b) Mouse?
- c) Extend Mode?

Solution Part (A)

1. Select one corner of range.
2. Click on **Home** Tab → Click on **Find and Select** from Editing Group → click on **Go To** or (Press F5) Key or Press (Ctrl+G)
3. Type : the cell reference of the opposite corner in the reference : text box
4. Press Enter

Solution Part (B)

1. Select one corner of range, Scroll the window so that the opposite corner appear.
Or

2. Press and Hold down **SHIFT** key as you click the opposite corner. All cells between the two corners are selected

Solution Part (C)

5. Select a corner of the range by using the mouse or Keyboard
6. Press F8 key to enter Extend Mode.
7. Select the opposite corner → click it or move the key up to desire cell
8. Press F8 again to turn Off Extend Mode

2.9 SELECTING MORE THAN ONE RANGE OF CELLS

Excel 2007 has the capability to select multiple nonadjacent ranges at a time. This feature helps you to format multiple ranges with a single command. You may even print different parts of the worksheet with a single print command. Similarly, you can erase multiple data entry cells with one keystroke.

How do you select multiple ranges of cells with the mouse, do this

1. Select the first range of cell
2. Press the hold down **Ctrl** key as you select each additional range of cell
3. Release **Ctrl** key

3. AUTO CALCULATE

When you select a range of cells, Excel 2007 displays the sum of the selected ranges in the status bar. You can use this feature to find total or sum without creating a formula or using a calculator. Simply select the range of cells containing numbers you want to total.

How can you change the Auto Calculate function?

1. Right click the status bar
2. From the Pop-up List that appear
3. Select the function you want to use for Auto Calculate, select the range you want see in the status bar.

4 SELECTING ROWS AND COLUMN WITH MOUSE

To select an entire row / column with a mouse, do this

1. Click on Row or Column heading.
2. To Adjacent Rows or Column → Hold Shift key and press the last Row/ Column Heading
3. To Non Adjacent Rows or Column → Hold Ctrl Key and press the Last Row / Column Heading

5.. Selecting Cells By Type Of Contents

Excel 2007 has a very useful command that enables you to select cells by contents or the relationship to formulas. This command is useful if you need to select the following

- Cells containing values within an area of formulas
- Related formula
- Comments
- A rectangular region that surrounds all touching filled cells
- Array formulas
- Errors
- Embedded, graphical or charting objects

To select cells according to their contents, do this

1. Click on **Home** Tab → Click on **Find and Select** from Editing Group → click on **Go To** or (Press F5) Key or Press (Ctrl+G)
2. Click on **Special** Button (Go To Special) Dialog Box appear on screen
3. Select option as given table
4. Click on ok



DTI COMPUTER MATHURA

Chapter -17

Introduction

The power of Excel 2007 lies in storing, manipulating, and displaying data items. Before you can manipulate and display data, you must enter it correctly. This chapter discusses the types of data you can enter in a cell of the Excel worksheet.

Types of Data Entered in a Cell

Text

- Text in a cell can include any combination of letters, numbers and keyboard symbols.
- ❖ A cell can contain up to 32,000 characters
- ❖ If column width prevents a text string from fitting visually in a cell, the display extends over neighboring cells.

Numerals

- A number may be displayed using commas, scientific notation, or one of many built-in numeric formats
- Date and Time are numbers but with special formatting. If you try to enter 1-9 as a text string
- When an unformatted number does not fit in a cell, it is shown in scientific notation
- When a formatted number does not fit within a cell, number signs like hash (###) are shown.

Logical Value

- You can enter the logical values such as TRUE or FALSE into cells. Logical values are used in writing conditional formulas
- If you say $3 > 4$, the result is FALSE because 3 is not greater than 4

Error

- An error value is a distinct type of data. For example, if a formula attempts to divide a number by zero, the result is the #DIV/0! error value.

Entering Data Items in worksheet

- When you see the message Ready in the status bar then you can enter data items in a worksheet. Entering data in Excel 2007 worksheet actually consists of 3 steps:
 - Activate the cell in which you want to enter data.
 - Type the data you want to enter
 - Finalize the data entry by pressing Enter key, Tab, or any one of the arrow keys.

DIFFERENT TYPES OF DATA ENTERED IN A CELL					
TEXT :	RAHUL		SCIENTIFIC FORM :		3.44E+14
NUMERALS:	100		FORMATED NUMBER:		#####
DATE:	11/4/2014				
LOGICAL VALUE	FALSE	TRUE	ERROR		#DIV/0!

Using shortcut keys for Data Entry

- To enter current date select the cell and press Ctrl+;
- To enter current time select cell and press Ctrl+:
- TO format a date in the default date format, press Ctrl+#
- To format a time in the default time format, press Ctrl+@
- Copies the formula from the cell above- Ctrl+'
- Copies the value from the cell above – Ctrl+''

Moving the active Cell when Entering

To quicken the data-entry process, select the range in which you want to enter data. The active cell would move automatically after pressing a data-entry key i.e. Entry button in the formula bar.

Data Entering Facilities auto fill feature

- You can enter series in two ways:
 - using mouse to drag the fill handle
 - Using a command that gives you the capability to create many types of series

Problem No1. Using Mouse To Drag The Fill Handle

1. Enter the first two element of data in the series
2. Select these two cells and then drag the fill handle down or right to fill increasing and drag the fill handle up or left to fill in decreasing order
3. The fill handle is the small square located at the lower right corner of selection
4. Release the mouse button

Problem No2. Create a number series with the help of fill series dialog box.

1. In the first cell, enter the first number
2. Select the range of cells you want to filled
3. Click on the Home Tab → Editing Group → Fill → series....
4. Click on ok button

Problem No3 Creating Series of text and Heading

1. Click **MS OFFICE** button → click **EXCEL OPTION** → click on **Popular** button → click on **Edit Custom Lists..**
Custom List dialog box appears as seen:
2. Select new List in the custom lists: Box
3. Click on **ADD** button
4. Click on **OK** button

AutoCorrect

Autocorrect feature that recognizes common typing error and automatically correct them as you type, It can also be used as a short hand tool where you enter the abbreviations for long word so that on entering the abbreviation, it is replaced with actual word

Problem No4 How will you add AutoCorrect Manually?

1. Click on **MS OFFICE** Button → click **EXCEL OPTION** → click on **PROOFING** → click on **Auto Correct Option.**
AutoCorrect option dialog box appear as seen
2. **In the replace :** text box, type the error or abbreviation as you type

3. **In The With** : text box type the correct spelling or abbreviation short term of the word
4. Click **Add** to add the new entry to the list of autocorrect entries
5. Click on **OK** Button

Validation of Data

Data validity is a check to determine whether data entered into a cell, defined by a set of criteria that you may set.

Problem No5. To specify the data validation settings, do this:

1. Select a cell or range for which you want to validate cell
2. Click on the **Data** Tab → **Data Validation** →
- ✓ **Click on setting Tab property sheet:**
 1. Select type of data to be validate or checked from the **ALLOW** drop down list
 2. Select an operator for validation from the **Data**
 3. Enter the appropriate values in Minimum and Maximum
- ✓ **To specify an input message, do this**
 1. Click the Input Message tab in Data Validation dialog box
 2. Click the **Show** input message when cell is selected so that the check box is ticked
 3. In the **Title Box**, enter a title for the message
 4. Type the text of the message in the **Input Message box**.
 5. Click on **ok** to save setting
- ✓ **To specify an error alert, do this**
 1. Click **Error Alert** tab in the Data Validation dialog box
 2. Click the **show error** alert After invalid data is entered
 3. Select style for the message from the drop down list
 4. **Enter Title** for the message in the Title : Box
 5. Enter the text for the **Error Message** in the Error Message Box
 6. Click on **Ok** Button

Auto Complete

Auto complete to make it easy for data entry operator to enter repeated text items in a column. Thus you only need to type repeated text once only. The next time you want to type the same text in or at the bottom of the column, you can type the first few letters of this entry. Excel will complete the rest of the entry. You need to press enter key to make the entry.

Editing cell entry

1. To edit an entry directly in a cell or press F2
2. Double click the selected cell

Problem No6. Moving Data and Formula

1. Select the cell or range of cells you want to move
2. Move mouse pointer over the selection border. The pointer changes to an arrow
3. Drag the pointer and gray outline of selection to new location
4. Release the mouse button when the gray outline is where you want to place the selected range.

Problem No 7. Copying DATA AND FORMULA

1. Select the range of cell you want to copy
2. Hold down **Ctrl+ key** and move pointer over an edge of the selection.
3. Drag the edge of the selection to where you want to copy.

Problem No8 Dragging and inserting cells to move and insert data, do this:

1. Select the cell or range of cells you want to move
2. Move the mouse pointer over the selection's border . The pointer changes to an arrow
3. Press and hold down the **SHIFT** key and drag the pointer to where you want the data inserted .the location where the data is inserted appears as a grayed partial cell boundary

Problem No9 Inserting cells with copy command

Select cell or range of cells you want to copy

Click on the **Home Tab** → click on **Copy** → **Right click on the cell** → **insert Copied cells**

➤ **Select from the following option**

- Shift cells right
- Shift cells down

➤ **Click OK**

Problem No 10 Moving information across a workbook

1. Select cell or range of cells
2. Click home tab → Cut(Ctrl + X)
3. Click Paste (Ctrl + V)

Note:

You can also drag a selected range to another worksheet in the workbook.

To do so hold down the **ALT** key then drag the selection sheet tab.

1. Filling or Copying cell contents with Fill handle
2. Using the fill handle
3. Using Ctrl+ Enter Keys to fill cells
4. Fill cells using command button
5. Using across worksheet

Problem No 11 Replacing Text, Number or Formula

The Replace command enables you to locate an entry and then replace the same in one step.

To Find and Replace do this:

1. Click the **Home tab** and the **Editing group** → Click the **Find and Replace** and choose the Replace (**CTRL +H**)
2. In the Find what:
3. In the Replace with:
4. Click Replace All button to find and replace all matches
5. Click the Find next to find match. Replace to replace the current found item. Click close button to stop the search.

Chapter - 18

Introduction

Excel 2007 has several methods for formatting data as well as the complete worksheet so as to make reports, tables and charts easier to read and understand. Excel 2007 enables you to:

Contents:-

- Change column width
- Change the height of rows
- Change numeric and data formats
- Change the font size, color, and style of character

8.1 FORMATTING ROWS AND COLUMN

In order to improve the appearance of a worksheet or table in it, you can adjust column width and rows height, thus you can fit more data on a page, if need be, you can even hide confidential data

Adjusting columns width

You can adjust the width of one or more columns to get a better look in a worksheet. If a column is not wide enough to display a number, date or time Excel 2007 displays it using # character in the cell. Therefore, you may need to adjust column width to show complete information.

Problem No1. How To Adjust Column Width With Mouse

1. Select the column
2. **Move the pointer** onto the **column separator** to right of column heading
3. **Drag** the column Left or Right until the column is of the required width
4. Release the mouse button

Problem No2. How To Adjust Column Width Using Command Button

1. Select the column
2. Click **Home** tab → click **Format** under the **cell group**
3. Select any one option to adjust column width
 - a. **Column Width** → **Define Size** → **Ok**
 - b. Auto fit selection
 - c. Default width

Problem No3. How To Copy A Column Width

1. Firstly Make Any Format With Different Size Of Column
2. Select Cells In The Column
3. Click **Home** Tab → Click **Copy** Button From Clipboard Group
4. Click **Home** Tab → Click **Paste Special** Button From Clipboard Group
5. Click On **Column Width** → Click On **Ok**

Problem No4. How To Hide Column

1. Select the **column** you want to hide
2. Move the mouse pointer over the column separator line
3. Right click on **column** → click on **Hide**

Method 2nd

Click on **HOME** tab → **FORMAT** under cell group → click on **HIDE & UNHIDE** from visibility → click on **HIDE** column

Problem No5. How To Unhide Column

1. Select Both **COLUMN**
2. Right click on **COLUMN** → **Unhide Column**

Method 2nd

- Click on **HOME** tab → click **Format** from cell group → click **UNHIDE** column

How would you adjust row height

- Using mouse
- Command Button

Problem No6. How To Adjust Row Height With Mouse

- Select the Row
- Move the pointer onto the row separator to below of row heading
- Drag the Row Up or Down until the Row is of the required Height
- Release the mouse button

Problem No7. How To Adjust Row Height Using Command Button

1. Select the **Row**
2. Click **Home** tab → click **Format** under the **cell group**
3. Select any one option to adjust Row Height
 - a. Row Height → Define Size → ok
 - b. Auto fit selection
 - c. Default width

8.2 Formatting cell and their entries

You can use different character fonts and styles in an Excel 2007 worksheet. You can also change font colors, which appear on screen. If you have a color printer, you print worksheet with these colors.

Formatting all characters in a cell or Range of cells

- Click the Home tab → Click the cells group → click arrow next to Format. Here select Cells.....
- Click on the Home Tab → Click the Font group → Click the Dialog Box Launcher a small icon
- Select the Font from the Font: list
- Select the font style from the Font style: list
- Select the font size from the Size: list.
- Select underline style from Underline drop-down list. The underline options are None, Single, Double, Single Accounting and Double Accounting.
- Select a color from the Color drop-down list.
- Click the preview box shows the result of the chosen formatting options.
- click the OK.

Formatting only the selected Characters in a cell

You can change the appearance of part of the text within a cell just as you change the appearance of a cell or range of cells. Formatting selected characters in a cell is useful for emphasis on specific words, titles, etc.

To format characters within a cell using Ribbon command do this:

- Follow steps 1 and 2 as above
- Select the Font from the Font list box.
- Select the font size from the Font size: Drop down list box.
- Click the Bold Button to make the character bold
- Click the Italic button to make the character italic
- Click the Underline button to make the character underlined.

8.3 Aligning and Rotating Entries in the cell

- In an unformatted cell, you would have noted that text aligns against the left edge of the column and numbers align against the right edge. However, you can align values or formula results so that they are left, right or center aligned in a cell,. Aligning a title across a selection of cells enables you to center a heading over a table or report.

8.4 Centering text across cells

1. MERGE AND CENTER BUTTON

The Merge and Center button does two things in one step. First, it merges the selected cells and then it centers the text in the left-most cell within the merges cell. The Merge cells option enables you to select a range of cells and include them into just one cell

Problem No. 8 How TO Merge Cell?

1. Select Two or More cell
2. Click on **Merge and Center** Button from **Home** Tab
3. Type Text in The cell

2. WRAPPING TEXT SO AS TO FIT WITHIN A CELL

Excel 2007 gives the option to wrap the text and to adjust it like a paragraph fitting within a cell. The cell's height increases to accommodate many such lines.

Problem No. 9 How TO Wrap Text Cell?

1. Select cell
2. Click on **Wrap** Button from **Home** Tab
3. Type Text in The cell

Enter a line break within text in a cell do this:

1. Start typing in the formula bar in the cell.
2. When you need to break a line, press **Alt + Enter** keys. The Wrap text option is automatically applied to the cell.

Shrinking Text so as to fit within a Cell

- When the cell entry is larger than the size of the cell then you can use the shrink option to fit within the cell. In this option, the contents are reduced in size so as to fit within the cell.

Problem No. 10 How to Shrinking Text so as to fit within a Cell

1. Type Text in Cell
2. Press Ctrl +1 key
3. click on Shrink Box

8.5 Rotating Numbers and Text

Text is seen horizontal and read from left to right. But excel 2007 given you the option to align text so that the letters can be stacked. It means, you can read text from top to bottom.

Problem No. 11 How To Rotate Number and Text in Cell ?

Solution:

1. Type **text / Number** in Cell
2. click on **Home** tab → Click on **Orientation** button → **select any one**

8.6 Adding color Pattern and Border

Shading, border and colors in a worksheet would enable you to make worksheet or reports appear attractive. You can make important information stand out. Such features create an impression on your readers to be of high-quality work.

Problem No. 12 How To Adding a Pattern on color

1. **Select the cell** to which you want to add color/pattern.
2. Click on **HOME** tab → click On **FORMAT** → **Format Cell** → Fill tab property sheet
3. Select The **Background Color** From Background Color Group.
4. Click on **Fill effects..... Button** to apply different shading style and set the transparency.
5. Select a pattern color from the **Pattern color: drop-down list**.
6. Select a pattern style from the **Pattern Style: drop-down list**
7. Click **OK**.

8.7 Adding Borders and Lines to cells in a Worksheet

You can place border around cell or lines and double lines. This is to add emphasis as well as to define data-entry areas. This also helps to mark total and subtotal, to appear distinct.

Copying formats from cells to other cells

- Excel 2007 gives a way to use format which you created for a cell or range of cells. With the Format Painter button, you can copy the formats from one cell and copy it to another cell.

Problem No13. How To Apply Border Format in Cell?

1. Select Cell
2. Click on **Home** Tab → **Format** → **Format Cell**
3. Click on **Border** Tab
4. Select **Border Style** and **Border Color**

8.8 Format Painter Button

The format painter button is designed to let you copy the formatting information from selected cell or range of cells. You can then apply that format to another cell or group of cells. Notes that all format information attached to the selected cells would be copied.

8.9 Protecting workbook

With Excel 2007, you can protect cells, graphical objects sheets windows, and even an entire workbook. To prevent unauthorized people from changing the protection status or the display of hidden information, you can also use the facility for password.

➤ The Procedure For Protecting A Worksheet And Its Contents Involves Two Commands:

- The first command formats the cells or objects that you want protected.
- The second command turns on protection for a sheet or the entire workbook.

Problem No. 14 How To Protect Sheet?

1. Click on **Review Tab**
2. Click On **Protect sheet**
3. Type **Password**
4. Click On **Ok button**

Problem No. 15 unprotects the sheet, do this:

- Under Review tab → Click the Unprotect sheet from Changes group
- In this dialog box, type the password, if you give any to unprotect the sheet and then click OK.

Problem No. 16 changing the standard font

- Click the **Office Button** → Click the **Excel Option** → Click the **Popular** button in left side
- When creating new workbooks
- Click the OK
- ☞ An alert box appears, warning that you must restart Excel 2007 before the new standard font can take effect. Click Ok

Conditional Formatting

Conditional formatting is the process of formatting cells automatically based on the data they contain. When the data changes and triggers a predetermined condition, Excel 2007 automatically changes the cell's format.

Problem No. 17 Format cells using data bars

1. Select range of cells in which you want to apply formatting with data bars.
2. Under **Home** tab → Click the **Conditional** Formatting from the style group.
3. Click the **Data** bar.
4. Set the condition and click the **OK** button.

Chapter -19

Introduction

- A name assigned in excel 2007 worksheet is considered as a recognizable and memorable label for a single cell or range of cells. For ex, the name sales 2007 is easier to recognize and remembered than the cell reference such as B4:G18.

Importance of names in worksheets

- By giving name to cells, we can add clarity, ensure reference integrity, and increase productivity. Moreover:
- Name makes formula easier to understand and maintain.

For example:-

Profit = sales – cost

Makes it easier to understand than =C3-B3, especially if we need to revise the worksheet after a long time.

- II. Name help us in speeding up worksheet navigation. It also simplifies entering formulas.
- III. Name make formula easy to remember and maintain. We can redefine a named reference, and all formula that use that reference are updated automatically.
- IV. When we have named range of cell, then adjustment would we automatically done up, when some rows or cells are added or deleted.

Rule to define names

- There are several rules we must adhere to, while defining names for the cell or range of cells. There are as follows:
 - ❖ A name can only contain the characters namely, A-Z (upper or lowercase allowed), number (0-9), period (.), and under score (_).
 - ❖ The first character must be an alphabet or underscore.
 - ❖ Names cannot be longer than 255 characters.
 - ❖ Spaces are not allowed, underscore and period may be used as a word separator.
 - ❖ A name cannot be the same as a cell reference, such as B3 or Y2007.
 - ➡ Name are case-retentive, but not case-sensitive. For example, when you define the name SALES, then define the name Sales again then the second name will replace the first reference.

Applying names to workbook / worksheet.

- Names can be given at workbook level (i.e. global names). They can also be applied at the worksheet level (i.e. level names). To define names at workbook /worksheet level, click under Formula Tab and then in the named Cells group click arrow next to Name a Range and then select name a range.

Naming Cell

- Excel 2007 offers the following methods to give name to cells.
 - Using the new Name dialog box.
 - Using the Name manager.
 - Using Name Box

- Creating form Selection

Naming Globally using new name Dialog Box.

Names that define globally apply to all the sheets in that workbook. for example, if a cell on sheet1 is names average and you are working in sheet2 and if you open the name box and select average in the list sheet1 becomes the active sheet and the cell names average is selected.

Example1 How do you define a name globally using new name dialog box?

➤ **Solution**

- Select range of cell (s) you want to name.
 - In the new name dialog box, type the name of range in the name: box.
 - Choose the scope of the ranged name i.e. workbook in the scope: box for global naming.
 - If you want to give comments, you can give in the comment box.
 - Refers to: collapsible box display the current selection. To current selection, you can enter a new cell reference and then click OK button.
- ☞ To use the same name to define cells or ranges on more than one sheet in a workbook, you need to create sheet-level names.

Local Naming using New Name Dialog Box.

The area of local is limited only to the sheet. This names cannot display on the name box on the left of the formula box that shows the name of the cell or cells.

Example 2:- How do you define a name locally using New Name dialog box?

➤ **Solution**

- Select range of cell (s) you want to name.
- In the new name dialog box, type the name of range of cells in the Name: box.
- Choose the scope of the ranged name i.e. sheet (n) in the Scope: box for local naming ,where n is the number of the sheet.
- If you want to give comments, you can give using the comment: box.

Refers to:- collapsible box display the current selection, you can enter a new cell enter a new cell reference and then click OK button.

Local/global naming by using Name manager dialog box

➤ To define a name globally/locally by using name manager, do this:

- Select range of cell(s) you want to name.
- Under formula tab and then in the named cells group click name manager. Name manager dialog box appears as seen in fig .
- In the dialog box, click on new...button to display the new name dialog box to create new name to range.
- Click on the edit... button to display the dialog box for editing the range or the name of range.
- Click on the delete button to delete the range. A confirmation dialog box appear asking whether you want to delete the range name or not.
- Click the arrow next to the left filter button and choose the option. If you want to see the list of named range using filters, select list according to the requirement.

Using the Name Box

- The name box appears at the left end of the formula bar. The reference area displays the cell reference for the active cell or the name of the currently selected cell or cells, if they are named.

☞ If you enter a name that is already used the cell or range of cells with that name is selected, rather than the current selection being given that name.

Naming Non adjacent cells

- Excel 2007 enables you to name non adjacent of cells using the new name dialog box or the name box. However, you cannot use the create names from selection dialog box for cells that are non adjacent.
- ☞ To select non adjacent cell or ranges make the first selection then press and hold down CTRL key and make other selection

Changing and deleting names

- If you want changes a name or the cells that the name refers to or you want to delete the names you no longer need, then use the method.

Working with names in formulas and commands

- You can use names in place of cell or ranges of cells reference. In formulas you just type a name. you can use names even in dialog boxes to indicate a cell reference or range of cells. Just type the name in the edit box requiring the reference.
- ☞ If you use name in formula that Excel 2007 cannot find the #Name? Error is shown.

Working with formulas

- A formula is entered into a cell. It performs a calculation of some type and returns result, which is displayed in the cell. Formulas in Excel always begin with an equal sign (=).

Entering cell references

- Cell references allow you to use values from different parts of worksheet and execute and enables you to do the desired calculation. You can use any cell or group of cells in a formula. The reference of the active cell is displayed in the name box at the left end of the formula bar.
- **Type of cell reference**
 - **Using Relative Reference:-**A relative cell reference in a formula is based on the relative position of the cell that contains the formula and the cell the reference refers to. If the position of the cell that contains the formula changes, the reference is changed. If you copy or fill the formula across rows or down columns, the reference automatically adjusts.
 - **Using Absolute References: -**You use absolute references only to keep the cell reference values from changing as and when you copy a formula to a new location in a worksheets. Indicate absolute reference putting a dollar sign (\$) in front of the column letter or row number that you want to freeze or both.
 - **Using Mixed References:-**You can create mixed references the same way as you can create absolute references. Type the dollar signs or specific row and column numbers without brackets or press F4 key. Each press of F4 cycles the cell reference to a new combination. Each time you press F4 key Excel cycles through all combinations of relative and absolute references. Press F4 key four times, for example and you cycle from B22 through \$B\$22,\$B22, and B22

Using Operators in Formulas

- Operators are used in formulas to execute operations on the values taken by formulas. Excel uses for type of operations. These given below

- **Arithmetic Operator:** -How to use each of the arithmetic operators in formulas is explained in the following :- +, -, *, %, ^
- **Text concatenation operator:-** The ampersand (&) operator joins text within quotation marks or text contained in referenced cells. Joining text is known as concatenation operator:
- **Comparative Operators:-** To compare values you can create formulas using comparative operators. These operators return a TRUE or FALSE result, depending on how the formula evaluate the condition. Subsequent table formulates some Comparative operates and the figure below

=	Equal to
<	Less Than
<=	Less than or equal to
>	Greater Than
>=	Greater than or equal to
<>	Not equal to
- **Reference operator:-**Reference operators make no changes to constants or cell contents. Instead they control how a formula groups the cells and ranges of cells when the formula is made to calculate.
- **Range Operator:-** Use the range operator(:) to reduce your work in formulas. If you want a formula to refer to all cells in column B, type B:B similarly the range that includes all cells in rows 5 through 12 is entered as 5:12.

Changing formula to values

- When you want to freeze a formula's result so that a formula changes to a value, then do as follows:
- Select the cell of an existing formula and press **F2** or click the formula bar, or double-click the cell if you are using in cell editing.
- Press **F9** key.
- Click the OK or Press Enter key.

Chapter -20

Entering function in a worksheet

You can operate a function using any of the following two ways.

- You can type the function name and the required arguments in the formula bar. To use this method you need to remember the name of the function and the arguments to be passed.
- Insert the function-- this is an easier method because excel 2007 inserts the function and asks you to fill in the parameters only.

Using the insert function

- Use the insert function to make your job much easier. The insert function guides you through the process and explains each function as well as each argument within a function.

Edit function manually do this:

- Select the cell contains a function
- Press F2 key to activate the formula bar or click in the Formula bar.
- Select the argument in the formula you want to change.
- Enter the new argument by typing, dragging, pasting a name, or inserting a function
- Press Enter key.

Math and Trigonometry Functions

- Excel 2007 includes many math and trigonometry functions. Mathematical function are used to perform wide verity of simple or complex calculation such as totaling the value for a range of cells, rounding of a number .
 - **Sum** ⇒ it adds all the Number in a range of cells.
Syntax = sum (Num1, Num2, Num3.....)
 - **Round** ⇒ Round a number to a specified number of digits.
Syntax: = Round (Number, Num_Degit)
 - **Round Up** ⇒ Round the number up, towards zero.
Syntax: = Roundup (Number, Num_Degit)
 - **Round Down** ⇒ Round the number down, towards zero.
Syntax: = Round Down (Number, Num_Degit)
 - **ABS** ⇒ it returns the absolute value of a number, a number without its sign.
Syntax → =abs (Number
 - **SQRT** ⇒ it return the square root (Positive square root) of a number
Syntax → SQRT (Number)
 - **SUMIF** ⇒ Adds the cells specified by a given condition or criteria.
Syntax: =SumIF (Range, Criteria, Sum_Range)

Logical Functions

- Logical functions are used when we want to check whether a given conditions is true or false

- **IF** ⇒ check whether condition is meeting, and returns one value if true, and another value if false.
Syntax: = IF (Logical test, true, false)
- **TRUE** ⇒ **TRUE ()** returns the logical value TRUE and it takes no arguments.
Syntax TRUE()
- **FALSE** ⇒ **FALSE ()** function is same as TRUE() but it returns the logical value FALSE.
Syntax FALSE()
- **And** ⇒ Checks whether all arguments are true, and return true if all arguments are true.
Syntax: = And (Condition1, conditon2, conditon3...)
- **Or** ⇒ Checks whether any of the arguments are true, and return true or false, returns false only if all arguments are false.
Syntax: = Or (Condition1, condition2, condition3)
- **Not** ⇒ Change false to true, true to false.
Syntax: = Not (Logical)

Statistical Function

- Statistical functions are used to perform statistical analysis on ranges of data. It includes simples well as complex statistical functions such as average, min, max, standard deviation slopes. etc
- **Max** ⇒ Returns the largest value in a set of value.
Syntax → =max (Num1, Num2, Num3.....)
- **Min** ⇒ Returns the smallest value in a set of value.
Syntax → =min (Num1, Num2, Num3.....)
- **Average** ⇒ Returns the average of its arguments.
Syntax → =Average (Num1, Num2, Num3.....)
- **Count** ⇒ Count the number of cell in a range that contains number.
Syntax → =count (Num1, Num2, Num3.....)
- **Count A** ⇒ Count the Text of cell in a range that contains number.
Syntax → =CountA (Text 1, Text 2, Text3.....)
- **COUNT IF** ⇒ count the number of cells within a range that meet the given condition in Criteria
Syntax: =CountIF (Range, Criteria)

Date and Time Function

- With date and time functions, you can analyze and work calculate with date and time value in formulas. For example, if you need to use the current date in a formula, you can use the TODAY() function, which returns the current Date.
- **Today** → Return the current date formatted as date
Syntax → = today ()
- **Now** → return the current date and time formatted
Syntax → Type the formula =now ()
- **Month** → Return the current month Jan to Dec.
Syntax → Type the formula =month (serial_number)

- YEAR → Returns the year corresponding to date.

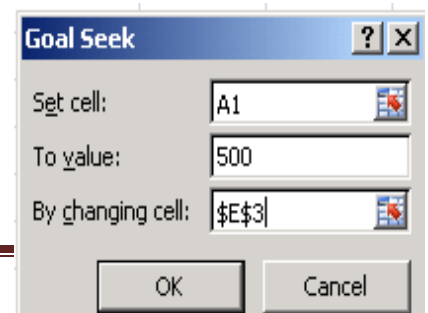
Syntax → Type the formula =year (serial_number)

Text and Data Function

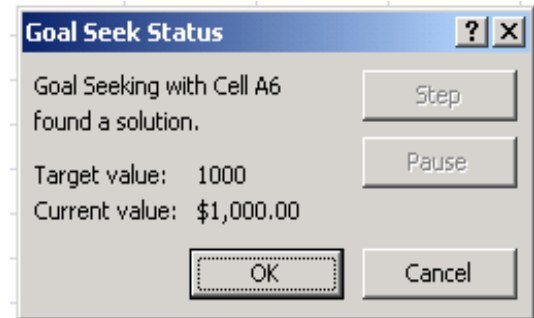
- With text function, you can use text strings in formulas. You can also change the case of the string, find out the length of a text string or you can join two strings etc.
- **Concatenate** ⇒ joins several text strings into one text string.
Syntax: =concatenate (Text1, Text2, text3,.....)
- **Upper** ⇒ Convert a text string to all uppercase letters.
Syntax: = Upper (text)
- **Lower** ⇒ Convert all letters in a text string to lowercase
Syntax: = Lower (text)
- **Proper** ⇒ Convert a text string to proper case, the first letters in each word in uppercase and all other letters to lower case.
Syntax: = Proper (text)
- **Len** ⇒ Returns the number of character in text string.
Syntax: = Len (text)
- **Left** ⇒ Returns the number of character from the start of a text string.
Syntax: = Left (text, Num_Degit)
- **Right** ⇒ Returns the specified number of character from the end of a text string.
Syntax: = Right (text, Num_Degit)
- **Mid** ⇒ Returns the character from the middle of a text string, given a starting position and length.
Syntax: = Mid (text, Num_Start, Num_Degit)

Financial Function

- Financial functions perform common business calculations. For example, determination of the payment for a loan.
- **SLN** → Returns the straight-line depreciation of an asset for one period
Syntax: =SLN(cost, Last_value,Life)
- **PMT** → Calculate the payment for a loan based on constant payments and a constant interest rate.
Syntax: = PMT (ROI/No_of_installment, No_of_installment*time period,-loan amount)
- **Fv** → FV function allows you to calculate the Maturity amount using the FV formula
Syntax → = FV (ROI/ No.Of_Installment, No_Of_Installment,-Installment Value, -Initial Deposit, Payment Type)
- **Goal Seek** → Goal seek is used to set the target value by changing cell value.
 - ✓ Firstly select the cell of maturity amount



- ✓ Use goal seek method to find the desired value by using command (Alt+A+W+G)
- ✓ TYPE THE DESIRED VALUE -7000
- ✓ CLICK ON by changing cell and select the cell of “installment value”
- ✓ Click on Ok button and see the target or current value → finally click on Ok Button.
- ☞ With Goal seek, you specify the value you want a formula to calculate and then Excel 2007 changes the data in the formulas cell reference to tell you what values you need to achieve that goal.



Computer Lab Work

ASSIGNMENT 1ST:

	A	B	C	D	E	F	G	H	I	J
1	EmpCode	EmpName	jan	Feb	Mar	Total Salary	Average Salry	Round	Round up	Round down
2	E001	Kalpna	6500.75	2300.26	4250.00	13051.01	4350.34	13051	13052	13051
3	E002	Manisha	2500.25	4200.45	3500.10	10200.80	3400.27	10201	10201	10200
4	E003	Jivan	3550.00	3600.78	5200.45	12351.23	4117.08	12351	12352	12351
5	E004	Mayank	4250.50	8500.00	3600.23	16350.73	5450.24	16351	16351	16350
6	E005	Sanjeev	3650.29	9600.36	4500.00	17750.65	5916.88	17751	17751	17750
7	E006	Rohit	2500.26	2500.00	2300.45	7300.71	2433.57	7301	7301	7300
8	E007	Komal	3600.25	3600.90	5203.00	12404.15	4134.72	12404	12405	12404
9	E008	Lovesh	1500.17	4500.00	2630.56	8630.73	2876.91	8631	8631	8630
10	E009	Urmila	2500.23	2500.00	4520.00	9520.23	3173.41	9520	9521	9520
11	E010	Shivani	9600.00	3600.25	3650.00	16850.25	5616.75	16850	16851	16850
12	Total Salary of month		40152.70	44903.00	39354.79	124410.49	41470.16	124410	124411	124410
13	Highest Salary of Month		9600.00	9600.36	5203.00					
14	Lowest Salary of Month		1500.17	2300.26	2300.45					
15	Total No of Employee		10							

ASSIGNMENT NO2:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Emp Code	First Name	Last Name	Sex	Full Name	Upper Name	Lower Name	Proper Name	Mobile No	Left Four Digit	Right Six digit	Midle 3 to 4	Length of Name	Salary
2	E001	Rohit	sharma	M	Rohit sharma	ROHIT	rohit	Rohit Sharma	9645236859	9645	236859	4523	12	13051
3	E002	Gaytri	thakur	F	Gaytri thakur	GAYTRI	gaytri	Gaytri Thakur	7500070003	7500	070003	0007	13	10201
4	E003	Hema	nathani	F	Hema nathani	HEMA	hema	Hema Nathani	7500040006	7500	040006	0004	12	12351
5	E004	Jivan	verma	F	Jivan verma	JIVAN	jivan	Jivan Verma	9368539951	9368	539951	6853	11	16351
6	E005	Raj	sharma	M	Raj sharma	RAJ	raj	Raj Sharma	7830523645	7830	523645	3052	10	17751
7	E006	Mohit	Gupta	M	Mohit Gupta	MOHIT	mohit	Mohit Gupta	9412353920	9412	353920	1235	11	7301
8	E007	Komal	Chaudhary	F	Komal Chaudhary	KOMAL	komal	Komal Chaudhary	7500362541	7500	362541	0036	15	12404
9	E008	Lovly	Pandey	M	Lovly Pandey	LOVLY	lovly	Lovly Pandey	9632451236	9632	451236	3245	12	8631
10	E009	Deepa	singh	F	Deepa singh	DEEPA	deepa	Deepa Singh	9383552635	9383	552635	8355	11	9520
11	E010	Umesh	Rawat	M	Umesh Rawat	UMESH	umesh	Umesh Rawat	7800263541	7800	263541	0026	11	16850
12	Total No of Female				5									
13	Total No of Male				5									
14	Total Salary Of Employee				124411									
15	Total Salary of Female				60827									
16	Total Salary of Male				63584									

ASSIGNMENT NO3:

H	I	J
Student Name	Marks	Status
Kalpana	175	Fail
Manisha	225	Fail
Jivan	325	pass
Mayank	342	pass
Sanjeev	232	Fail
Rohit	362	pass
* Those student should be pass who's marks More than equal 250		

ASSIGNMENT NO4:

L	M	N	O	P
Candidate Name	Marks	Exp	Status And	Status Or
Rajesh	65	2	TRUE	TRUE
devesh	45	2	FALSE	TRUE
Monu	60	1	FALSE	TRUE
Geeta	42	3	FALSE	TRUE
sunita	60	2	TRUE	TRUE
lovely	36	1	FALSE	FALSE
Case 1st :Those candidate should be selected who's marks more than 50 & Exp > 1 year				
Case 2nd :Those candidate should be selected who's marks more than 50 or Exp > 1 year				

Assignment No5

	A	B
1	Amortization Table	
2	Loan Amount	1000000
3	Time Period	10
4	No of installment	12
5	Rate of Int	10.25%
6	PMT	\$13,353.90

Assignment No6

D	E
Amortization Table	
Initial Amount	3000
Monthly Amount	500
No of installment	12
Rate of Int	5.00%
Payment Type	1
FV	\$9,318.49

Assignment No7

9	Amortization Table	
10	Cost Of Machine	500000
11	Life Of Machine	5
12	Scrap Value	50000
13	SLN	\$90,000.00

Chapter - 21

Introduction

You can create different type of chart using excel 2007 that will help you to analyze data in a worksheet and give you a visual presentation of result. You can even customize the chart by adding text, arrows, title, and legends etc.

Types of Charts?

There are two types of charts namely, **EMBEDDED** chart and **CHARTS** that appear in a chart sheet.

1. Embedded chart

An embedded chart appears in a worksheet next to tables or text. Embedded charts are required when you want a chart side-by-side with the data for the chart, as in the case of a case of a report document.

2. Chart in a chart sheet

A chart can be created by itself in its own chart sheet within a workbook .you are able to work with the chart sheet separately from the worksheet contain data. If you insert a chart in a sheet, you add the chart to the active workbook and save it along with workbook.

Quickly Generate Chart

- To quickly create chart -
- Select data and press F11 key → chart In chart sheet
- Select data and press Alt+ F1 key → Embedded chart in same sheet

Standard Chart Types

- Excel 2007 can draw eleven types of charts. It gives you option for representing data most effectively using any of these types charts. Each of these chart types have several sub- types. Many chart type may also have 3d sub types

1. Column Chart

A column char compares separate items as they vary over time. Column chart are used for comparing different items by placing them side by side. Cylinder, cone and pyramid chart available in the same cluster.

2. Bar chart

A bar chart is similar to a column chart except that categories are on the vertical (y) axis and the value on the horizontal (X) axis.

3. Line Chart

The line chart compare trends over a period of time. Line chart is used in production, sales, or stock market situation to show trend of revenue or sales over a period of time

4. Pie Chart

A pie chart compares the sizes of pieces in a whole unit. This type of chart is used when the parts total 100 percent for a single series of data. Pie chart show the percentage of mix in product shipped , mix in income sources, or mix in target population. Wedges in a pie chart can be pulled out from the pie to emphasize the data point they represent. To explode a slice of a pie Chart, click

a second time to select the individual slice. Drag the slice away from the pie. Release the mouse button when the slice is positioned where you want it.

5. XY (Scatter) Chart

A Scatter Chart or XY chart is useful for trends of collection of revenue in a company over uneven intervals plotted on the x-axis.

6. Area chart

- An area chart compares the continuous changes in volume of multiple data series. This type of chart sums the data from all the individual series to create the top line that enclose the area, giving the view of how different series contribute to total volume. Use this chart for sales and production figures of a company to show how volume changes over time and to emphasize the amount of volume to change.

7. Doughnut Chart

- Similar to pie charts, doughnut charts compare the sizes of pieces in a whole unit. The arrangement of the doughnut chart enables you to show more than one data series.

8. Radar Chart

- The radar charts are used to show the relationship between individual data series and between a specific series and the whole of the other.

9. Surface Chart

- The surface charts show high and low points along a surface. Surface charts are an excellent way to visually locate high and low points resulting from two changing variables. Surface charts can highlight relationship between data that would not otherwise be easy to ascertain. Colors and patterns are used to indicate areas of the same value in a surface chart.

10. Bubble Chart

- A bubble chart allows you to represent three variables on a two-dimensional surface. The first two variables are plotted against the category (X) and value (Y) axes, just as in an XY (Scatter) chart. The third variable is represented by the size of the bubble. To create a bubble chart, you need three rows or columns of values, one each for X and Y values and one for the bubble size.

11. Stock Chart

- Stock charts display stock prices over time. You can display high, low closing prices and volume of stocks traded.

Creating a chart

- Select the data items you want to appear as charts.
- Click the Insert Tab → Click the chart from the Chart Illustration group.
- Click the Next to that chart which you want to insert and then select the chart from the chart subtype.

Changing the types of a chart

- Excel 2007 offers you eleven different chart types and within each of these general types, you can select any sub-types. The easiest way to create charts is to select a chart type and sub-type you want. Thereafter, you may customize this chart according to your requirement.

Changing Data Source



- You can add to an existing chart. You can even add new data series or data point to existing series or change the range of data used by a chart.

Inserting

Assignment:

DTI COMPUTER MATHURA

CHAPTER - 22

Introduction

- You can set merging and fonts and include headers/ footers as well as titles while printing a worksheet. You can even print multiple copies of entire or a part of it. Moreover, before you print, you can preview a worksheet to see how it will look when you print it.

Setting up worksheets for printing

- Before you actually print worksheet, it is better that you change the page setup as per the printer and paper you are going to use for printing a worksheet.
- Page setup opting in excel involves four categories namely, page margins, header/footer and sheet.

Margins option

- To set the margins do this:
- Click the margins tab of the page setup dialog box, the preset the margins and select the position of headers, footers and print areas from the margins tab in the page setup dialog box. Options are available:
left, Top, Right, Bottom, Header, Footer, Center on page, Horizontal, Vertically

Headers and footers

- You use headers for company names and report titles, etc. the footers are commonly used for page numbers and printout dates/times
- If need be, you can use the built in header/ footer option in excel or you can specify custom headers/footers.

To use a built in headers/footer do this:

- In the page setup dialog box, click header/footer tab property sheet.
- In the header: drop-down list select the built in header.
- In the footer: Drop-down list select the built in footer.
- Click OK.

To specify print title, do this

- Print titles are not the same as page headers. However they can be used for similar purposes. Also a page can set up both print titles or page headers or both.

Deleting a print area or print titles

- If you want to print the entire worksheet instead of predefined print area then you must first delete the print area in the print area edit box.

To delete the print area do this:

- Click the File menu highlight print area then click Clear Print area. Alternatively, in the sheet tab property sheet of Page sheet dialog box clear the print area edit box.
- Previewing a worksheet before printing

To print preview a worksheet, do this:

- Click the file menu and choose print preview. Alternatively, click the print Preview button on the standard toolbar.
- Excel switches to print preview mode.
- Print Preview should be carried out to confirm that you want to print the worksheet as you see it on the screen.

How to set page breaks in worksheet?

- When you print a worksheet excel automatically creates page breaks where needed. But it also gives you an option to insert page breaks manually too.

Showing automatic page breaks, do this

- Automatic page breaks are not shown on the worksheet, when the sheet is viewed in the Print Preview mode for the first time.

To display automatic page breaks, do this:

- Click the tools menu and choose option. The options dialog box appears.
- Click tab view tab. The view tab property sheet appears as in.
- Check the page breaks option.
- Page breaks are shown by broken lines which run along the gridlines.

Printing an excel worksheet

- To print a worksheet works sheet do this:
- Click the File menu and choose print. The print dialog box. The print dialog box is similar to Microsoft word print dialog box. Alternatively click the print button on the standard toolbar. This prints the selects worksheet immediately and will not show a dialog box.

Printing formulas

- By default a worksheet is printed as displayed on the screen. But you can print the underlying formulas instead.

To print formulas, do this:

- Click the tools menu and choose options, then selecting the view tab. In the view tab property sheet appears. Check the formulas check box (or press **Alt + R** to display the formulas).