COMPUTER SCIENCE

FOR CLASS – VII

ਸਮੱਗਰ ਸਿੱਖਿਆ ਅਭਿਆਨ

ਪੜ੍ਹੋ ਸਾਰੇ ਵਧੋ ਸਾਰੇ

ਸਿੱਖਿਆ ਅਤੇ ਭਲਾਈ ਵਿਭਾਗ, ਪੰਜਾਬ ਦਾ ਸਾਂਝਾ ਉਪਰਾਲਾ

Punjab School Education Board

Sahibzada Ajit Singh Nagar

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ਇਹ ਪੁਸਤਕ ਵਿਕਰੀ ਲਈ ਨਹੀਂ ਹੈ।

FOREWORD

The Punjab Curriculum Framework (PCF 2013) which is based on National Curriculum Framework (NCF) 2005 recommends that the child's knowledge must be connected to their life outside the school. It indicates a departure from the legacy of bookish learning and ensures that learning is shifted from rote methods to activity based learning and also provides an opportunity for the holistic development of the students.

Over the years, Computer Science as a discipline has evolved and emerged as a driving force for socio-economic activities. Computer technologies are widely used in diverse areas of modern life such as education, business, health, transport and all other sectors also. With the advent of computer and communication technologies, there has been a paradigm shift in teaching at the school level. The role and relevance of this discipline is in focus because the expectations from the school pass-outs have grown to meet the challenges of the contemporary world. Today, we are living in an interconnected world where computer-based applications influence the way we learn, communicate, commute or even socialise in day to day life.

Keeping in view these requirements, Punjab School Education Board has introduced Computer Science as a compulsory subject from class 6th to 12th as per guidelines of Punjab Government. Every effort has been made to include each requisite information according to level of class 7th in this book. I hope it will be useful for students and teachers.

This book focuses on the fundamental concepts and problem-solving skills while opening a window to the emerging and advanced areas of computer science. The newly developed syllabus has dealt with the dual challenge of reducing curricular load as well as introducing this ever evolving discipline.

Punjab School Education Board welcomes and look forward to feedback and suggestions for the improvement of its subsequent editions.

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CHAPTER - 1

TYPING TUTOR

INTRODUCTION

In this chapter, we will learn to expertise our typing skills. We will also learn how to use keyboard properly and position of fingers on keyboard. Typing Tutor is a program for learning touch typing.

1.1 TOUCH TYPING

Touch typing is a technique by which we can learn typing with all fingers, step by step, without looking at the keyboard. If all the time we keep on looking for right keys on keyboard, which

Fig1.1: Keyboard divided into two parts: left and right for typing

results in slowing our typing speed a lot. As shown in figure below, the keyboard is divided in two parts: one for the left hand and one for the right.

1.2 POSITION OF FINGERS ON KEYBOARD

There are mainly four lines on QWERTY keyboard. Left side keys of keyboard are pressed with left hand fingers similarly right side keys are pressed with right hand fingers. Fingers of both the hands are placed on the line starting with A, also called Home Row. After pressing the key of any other row, fingers should be returned to the Home row.
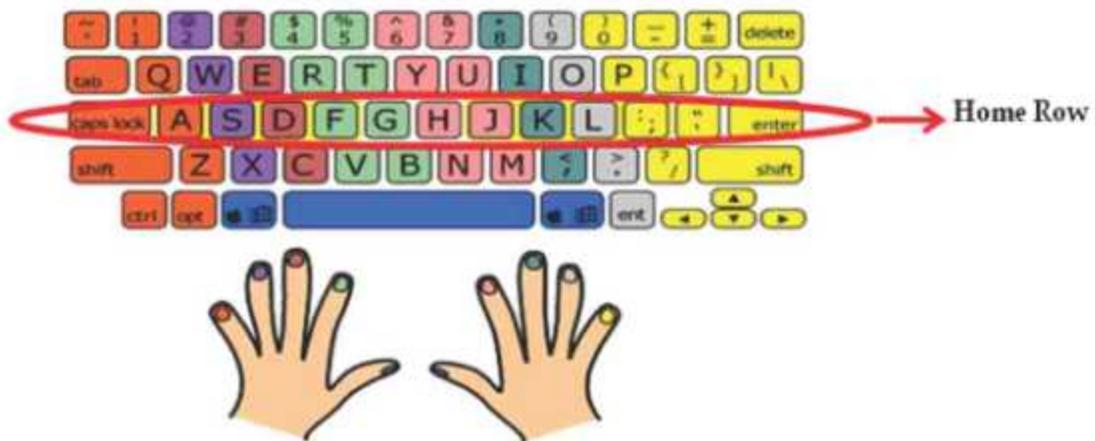
Fig 1.2 Home Row Finger position

1.2.1 The Home line

The "Home Row" finger position is shown in the following picture. Place your fingers in the Home Row position on your keyboard.
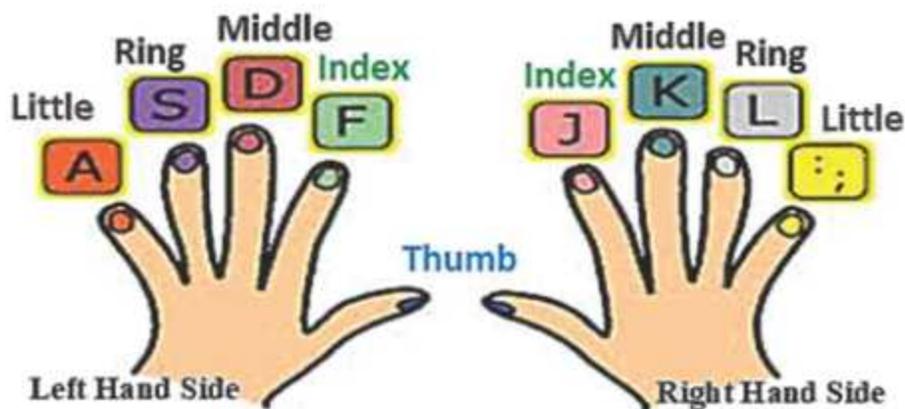
Fig 1.3 Position of fingers on Home row keys

Position of fingers at Home Row: First of all, the Little finger (fourth finger) of ourLeft hand would be on A key, Ring finger (Third finger) on S key, Middle finger (second finger) on D key, Index finger (first finger) on F and on G key respectively. Similarly Little (fourth), Ring (third), Middle (second) and Index (first) fingers of Right hand should be on ; key, L key, K key, J key or H key respectively.

Left Hand Side

A	S	D	F	G

Right Hand Side

H	J	K	L	;

Little (Pinky) Finger	A
Ring Finger	S
Middle Finger	D
Index Finger	F and G

Little (Pinky) Finger	;
Ring Finger	L
Middle Finger	K
Index Finger	J and H
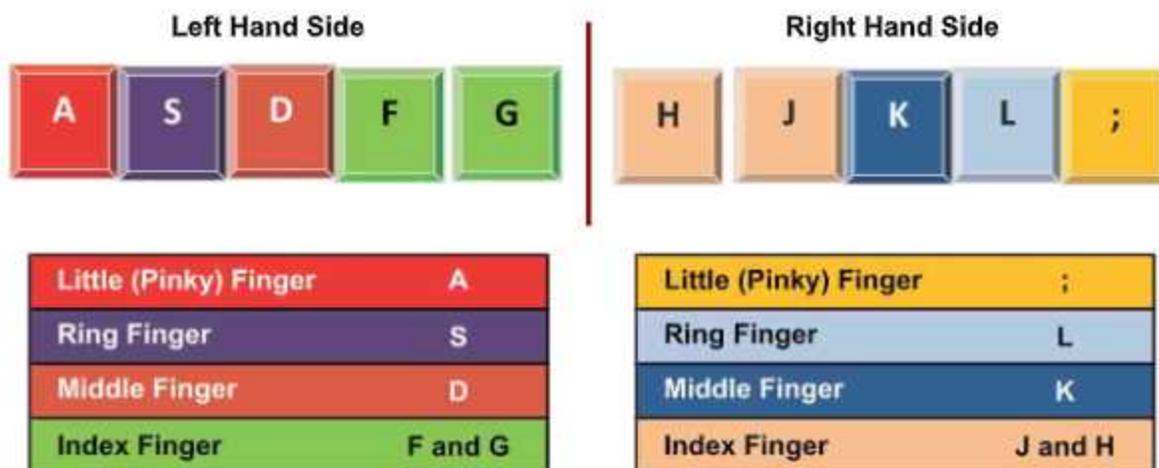
Fig 1.4 Home row keys of both hands

1.2.2 Second Line Keys

Keys above the Home row are considered as Second line keys. This row begins with letter Q. For typing the keys of this row, we have to place **Little finger of our left hand** on Q key, Ring finger on W key, Middle Finger on E key and Index Finger on R key or T key alternatively. Similarly, put **little finger of right hand** on P key, Ring finger on O key, Middle finger on I key and Index finger on U key or Y key alternatively.After pressing any key of this row, fingers should be returned to the Home row.

Left Hand Side

Q	W	E	R	T

Right Hand Side

Y	U	I	O	P

Little (Pinky) Finger	Q
Ring Finger	W
Middle Finger	E
Index Finger	R and T

Little (Pinky) Finger	P
Ring Finger	O
Middle Finger	I
Index Finger	U and Y
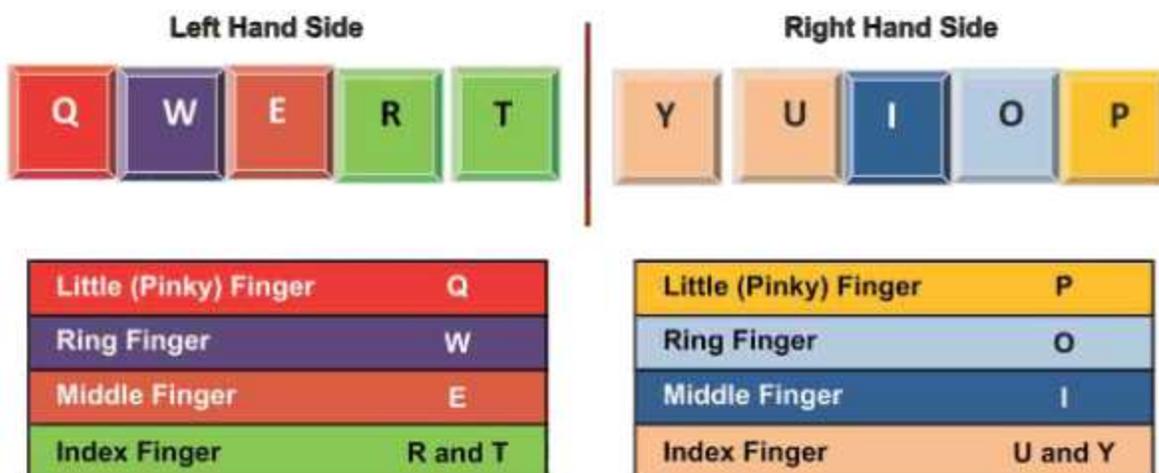
Fig 1.5 Second row keys of both hands

1.2.3 Third Line Keys

Keys below the Home row are considered as **Third line keys**. This row begins with Z key. For typing the keys of this row, we have to place **little finger of our left hand** on Z key, Ring finger should be on X key and Middle finger on C key and Index finger on V or B key turn by turn. Similarly, **little finger of right hand** should be on '/' key, ring finger on '.' key. Middle finger on ',' key Index finger on M or N key alternatively. After pressing the any key of this row, fingers should be returned to the Home row.

Left Hand Side

| Z | X | C | V | B |

Right Hand Side

| N | M | , | . | / |

Little (Pinky) Finger	Z
Ring Finger	X
Middle Finger	C
Index Finger	V and B

Little (Pinky) Finger	/
Ring Finger	.
Middle Finger	,
Index Finger	M and N
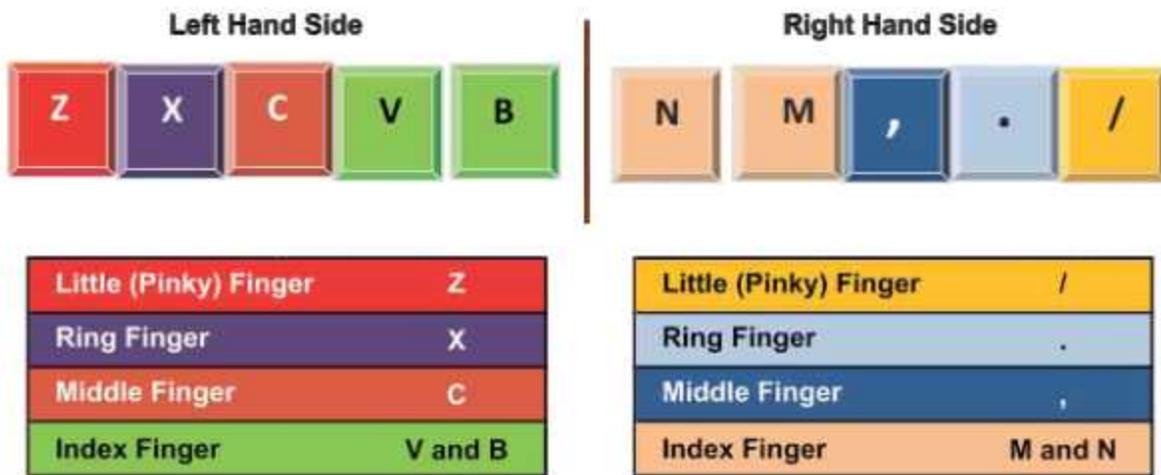
Fig 1.6 Third row keys of both hands

1.2.4 Fourth Line Keys

Row of keys having Numbers, above the Second row, is considered as Fourth Line Keys. Place the fingers on both hands as shown below in the diagram. We should be careful while typing these number keys. Initially,our fingers should be on home line. Press the desired number key with the corresponding finger as shown below and then return back to home row. We should type carefully to achieve 100% correct typing result. If our task is related to only numbers then keep the fingers on fourth line.

Left Hand Side   **Right Hand Side**

Fig 1.7 Fourth row keys of both hands

Left Hand Side

| 1 | 2 | 3 | 4 | 5 |

Right Hand Side

| 6 | 7 | 8 | 9 | 10 |

Little (Pinky) Finger	1
Ring Finger	2
Middle Finger	3
Index Finger	4 and 5

Little (Pinky) Finger	10
Ring Finger	9
Middle Finger	8
Index Finger	7 and 6

Fig 1.8 Fourth row keys of both hands

1.3 NUMERIC KEY PAD

Numeric Key Pad is present on right side of the keyboard. It provides an impressive and fast method to work with numbers. This keypad is a square of keys rather than a line. We have to use only one hand (Right Hand) to work with its keys. Each finger manages the keys of one vertical line. The fingers that are used for working on these keys should be as below:

- Index Finger is used for 1, 4 and 7 keys
- Middle Finger is used for 2, 5 and 8 keys
- Ring Finger is used for 3, 6 and 9 keys
- Little Finger is used for Enter, "+" and "-" keys
- Thumb is used for 0 key

Fig 1.9 Numeric key Pad

Note : To use Number Pad, **Numlock** should be kept ON. External USB numeric keypads are also available in the market.

1.4 IMPORTANT KEYS ON KEY-BOARD

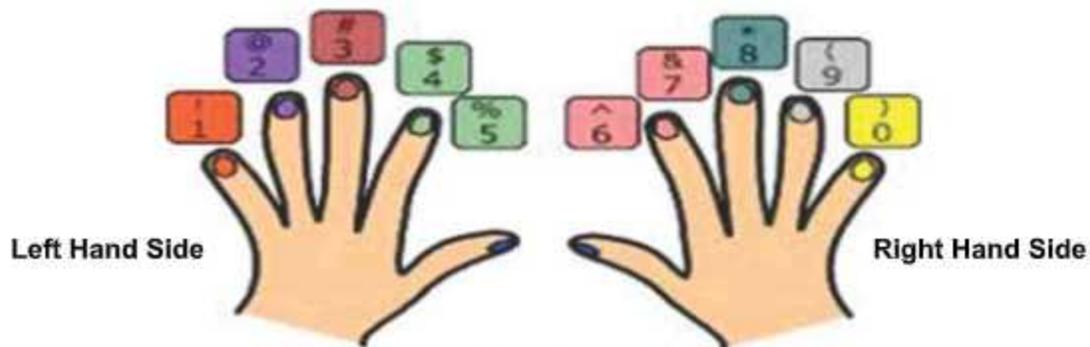- **Spacebar :** To put a space in between letter pairs we use spacebar key. We use our dominant right thumb for the spacebar.
- **Enter key :** It is used to move down to a new line. Use our right little finger for the Enter key.
- **Backspace key :** Deletes one character to the left of the blinking cursor. Use our right little finger for the Backspace key.
- **Shift key :** It is present on both the sides of key board. It is used to write capital letters. If we want to write a capital letter with left hand, press shift key with fourth finger of right hand and similarly press shift button with fourth fingers of left hand to type capital letter with right hand.
- **Caps Lock key :** Press caps lock key if we want to type complete word, line or paragraph in Capital Letters. Use our left little finger for the Caps Lock key.

1.5 TIPS TO IMPROVE TYPING SPEED

1. Our hand/finger position should always be on home row. We must start from and return to this position. We should reach for other keys from home row.
2. We should focus on accuracy not on speed. Speed will come with time and practice.
3. Don't look at the keyboard while typing.
4. Be steady, even pace and strive for accuracy.
5. As we tap each key, we should say its letter to ourselves.

1.6 PROPER POSTURE

While typing we must know about the proper posture. So follow the steps written below:

1. We should sit straight, directly in front of keyboard.

2. Our feet must be flat on floor.

3. Monitor should be at our eye level.

4. Our eyes should be on copy or monitor.

5. Our fingers must be curved and upright over home keys.

6. We should strike each key with a quick snap and then return to home position Keys.

Fig 1.10 Proper Posture

1.7 SUGGESTIONS FOR REPETITIVE STRESS INJURIES/ DISCOMFORT DURING CONTINUOUS TYPING:

1. Position yourself properly at your computer. Your screen should be 2 feet away from you and the top of your document should be at eye level.

2. Your chair should be at the perfect height if you have to sit at your computer with your knees bent at right angles and your feet flat on the floor.

3. Set up your keyboard so that it is flat or slightly elevated. Do not have your keyboard slanted downward.

4. Keep your wrists straight and elbows in a 90 degree angle while typing. Your wrists should not rest on the table or wrist rest while typing.

5. Rest your wrists when you are not typing.

6. Take frequent short breaks rather than one long break.

7. Stretch your wrists before you start to work and during breaks, and strengthen your wrists with exercise.

8. Exercise regularly. Overall body conditioning seems to help guard against repetitive motion injuries.

Points To Remember

1. Touch typing is a technique by which we can learn typing with all fingers

2. The keyboard is divided in two parts: one for the left hand and one for the right.

3. Keys of left side are pressed with left hand fingers similarly right hand fingers are used to press right side keys.

4. To type numbers, most impressive and fast method is Numeric Key Pad. It is present on right side of key board.

5. To put a space in between letter pairs, we use our dominant thumb for the spacebar.

6. Backspace key Deletes one character to the left of the blinking cursor

7. AnmolLipi font helps us typing in Punjabi.

8. Our hand/finger position should always be on home row. We must start from and return to this position.

9. Enter key is used to move down to a new line.

10. We should focus on accuracy not speed. Speed will come with time and practice

EXERCISE

1. **Multiple choice questions :**

   I. To use number pad, _____ should be kept ON
      a) Num Lock   b) Caps Lock
      c) ScrollLock   d) None of These

   II. In home row, _____ key is pressed with little finger of left hand.
      a) A   b) S
      c) D   d) F

   III. In home row, _____ key is pressed with Middle finger of right hand.
      a) J   b) K
      c) L   d) ;

   IV. In Second row, _____ key is pressed with ring finger of left hand.
      a) Q   b) W
      c) E   d) R

   v. In third row, _____ key is pressed with index finger of right hand.
      a) B   b) N
      c) M   d) M, N

2. **Fill in the blanks:**

   I. For typing purpose, a keyboard can be divided in .... parts?

   II. .... is a technique for typing with all fingers without looking at keyboard.

   III. .... finger is used to press spacebar during typing?

   IV. .... key is used to go to new line during typing?

3. **Short Answer type Questions:**

   I. What is Touch Typing?

   II. Describe the position of our fingers on Home Row Key?

III. What are the tips to improve typing speed?

IV. While typing numbers from numeric key pad, which hand we should use? Explain the position of your fingers on numeric key pad.

4. **Long Answer type Questions:**

I. Explain the Proper Posture while typing?

II. Explain following keys:

    A. Enter key

    B. Backspace key

    C. Shift key

Activity
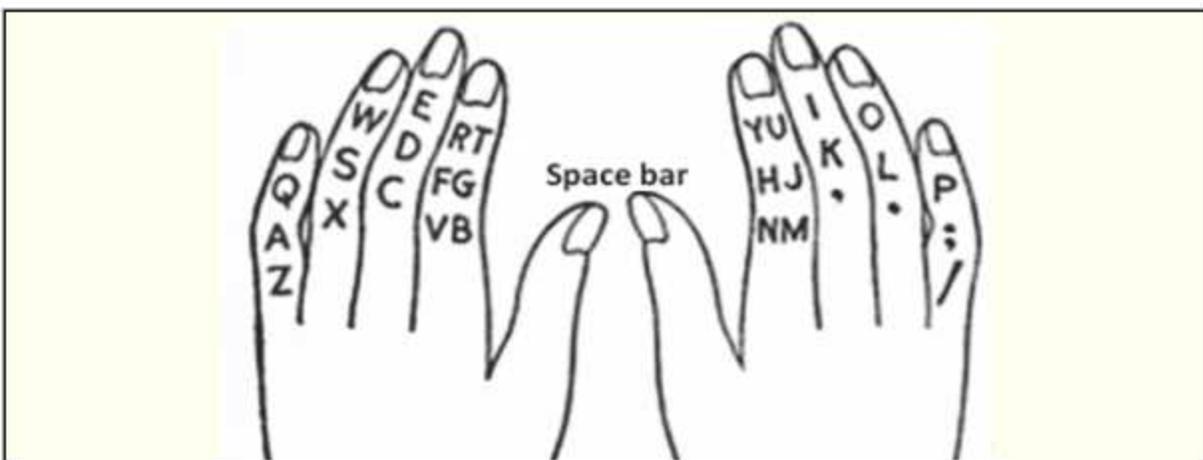
EXERCISE I

asdfg	;lkjh	asdfg	;lkjh	asdfg	;lkjh	asdfg	;lkjh	asdfg
asdfg	;lkjh	asdfg	;lkjh	asdfg	;lkjh	asdfg	;lkjh	asdfg
asdfg	;lkjh	asdfg	;lkjh	asdfg	;lkjh	asdfg	;lkjh	asdfg
asdfg	;lkjh	asdfg	;lkjh	asdfg	;lkjh	asdfg	;lkjh	asdfg
asdfg	;lkjh	asdfg	;lkjh	asdfg	;lkjh	asdfg	;lkjh	asdfg

EXERCISE II

Ask	Fad	Alsas	Shad	Lads	Flags	Flask
Jag	Fag	Fall	Hash	Glad	Galls	Salad
Jak	Had	Gaff	Dash	Gall	Flash	Slash
Sad	Lad	Adds	Lash	Hall	Lakhs	Dhalls
Dad	Asks	Alas	Dall	Fall	Glass	Shall

EXERCISE III

qwert	poiuy	qwert	poiuy	qwert	poiuy	qwert	poiuy	qwert
poiuy	qwert	poiuy	qwert	poiuy	qwert	poiuy	qwert	poiuy
qwert	poiuy	qwert	poiuy	qwert	poiuy	qwert	poiuy	qwert
poiuy	qwert	poiuy	qwert	poiuy	qwert	poiuy	qwert	poiuy
qwert	poiuy	qwert	poiuy	qwert	poiuy	qwert	poiuy	qwert
poiuy	qwert	poiuy	qwert	poiuy	qwert	poiuy	qwert	poiuy

EXERCISE IV

awerqfa	;oiupj;	awerqfa	;oiupj;	awerqfa	;oiupj;
awerqfa	;oiupj;	awerqfa	;oiupj;	awerqfa	;oiupj;
awerqfa	;oiupj;	awerqfa	;oiupj;	awerqfa	;oiupj;
awerqfa	;oiupj;	awerqfa	;oiupj;	awerqfa	;oiupj;
awerqfa	;oiupj;	awerqfa	;oiupj;	awerqfa	;oiupj;

EXERCISE V

Fish	Dirks	Oldest	Apple	Grade	Falls	Kodak
Rails	Jaded	Dead	Usual	Sales	Filed	Legal
Lease	Lakes	Agile	Isles	Ahead	Larks	Roses
Forks	Hedge	Skill	Rupee	Grass	Would	Alpine
Jaded	Liked	Equip	Quail	Jokes	Asked	Walks
Fiddle	Saddle	Dead	Filed	Lakes	Lease	Legal

EXERCISE VI

azxcvf	lkmnbj	azxcvf	lkmnbj	azxcvf	lkmnbj
azxcvf	lkmnbj	azxcvf	lkmnbj	azxcvf	lkmnbj
azxcvf	lkmnbj	azxcvf	lkmnbj	azxcvf	lkmnbj
azxcvf	lkmnbj	azxcvf	lkmnbj	azxcvf	lkmnbj
azxcvf	lkmnbj	azxcvf	lkmnbj	azxcvf	lkmnbj

EXERCISE VII

Cat	Jack	Colour	Neither	Enemy	Boat	Calcutta
Not	Have	Joints	Calling	Voted	Very	Vineyard
Met	Wind	Nerves	Enlarge	Money	Move	Material
Men	Verb	Verbal	Someone	Marry	Give	Sterling
Bent	Joint	Jackets	Examine	Thousand	Cylinder	Assessment
King	Carry	Jumbled	Examined	Struggle	Possible	Beginning
Zeal	Night	Booklet	Gracious	Grizzled	Frequent	Meanings
Zero	Tonic	Cutting	Becoming	Zodiacal	Exponent	Doubtless

EXERCISE VIII

12345	098767	12345	098767	12345	098767
12345	098767	12345	098767	12345	098767
12345	098767	12345	098767	12345	098767
12345	098767	12345	098767	12345	098767
12345	098767	12345	098767	12345	098767

EXERCISE IX

Type the following sentences 5 times:

1. Lost time is never regained
2. Get-up early and do your work
3. Today's youth and tomorrow's old
4. Age is a virtue when wisdom is with it.
5. Measure your word before it goes out of you
6. My steps are measured
7. A friend in need is a friend indeed
8. Children are innocent and should be guided rightly.
9. Our Land has great sages who knew the eternal truth.
10. Truth never fails
11. The Quick Brown Fox Jumps Over A Lazy Dog

EXERCISE X

Type the following paragraph 10 times:

Our flag is tri-colour. SAFFRON is the symbol of sacrifice and a string mind. WHITE is the symbol of purity, love and peace. GREEN is the symbol of plenty and joy. We hoist and salute our flag. We are ready to make sacrifices for our country. We want peace and progress. We want to be pure.

CHAPTER - 2

WINDOWS EXPLORER

INTRODUCTION

Windows Explorer is an important application of Operating System. It connects us with the files and folders present in computer. Basically Explorer is of two types-Windows Explorer and Internet Explorer. Internet Explorer is used in Internet applications. In this chapter we will learn only about Windows Explorer.

2.1 WINDOWS EXPLORER

We know that Windows Explorer is an important application of Operating System. Windows explorer is also known as file explorer. It is used to view files and folder that is in our Computer. We can browse or search the contents of disks, folders and libraries. We can use it in opening files, deleting files and folders, renaming them, copying and moving them around, and creating new folders.

The main function of Windows Explorer is to provide a graphical interface to navigate the hard disk or any other media that is connected to our computer. It also provides help to display the contents of the sub folders and folders used to organize files on the hard disk and proper management of files and folders.

2.2 OPENING WINDOWS EXPLORER

There are a number of ways to open windows explorer. Let's discuss some of the common ways to open windows explorer:

1. Press **Windows key** ▦ **+ E button** together.

<div align="center">

OR

</div>

2. Press **Windows key** → **Click on All Programs** → **Accessories** → **Windows Explorer**

<div align="center">

OR

</div>

3. Press **Windows key** → **Type "Explorer"** in search Box and Press Enter

<div align="center">

OR

</div>

4. Press **Windows key+ R** together to open **Run** box → Type **Explorer** in Run Box and press **Enter** key from keyboard

2.3 PARTS OF WINDOWS EXPLORER

Before studying parts of Windows Explorer, we should learn about Structure of Windows Explorer. In windows Explorer, we can see three basic structures-Files, folders and Drives. A file is the smallest unit to store data. Files of common subject are present in a same folder. A folder can have many files stored in it. These files can be of different applications.

We know that we need a storage device like Hard Disk, CD, DVD etc. to store our data for future use. A hard disk is available mostly in all computers. The storage area of a Hard disk is further divided into small parts. These small parts are called drives. We can label these drives such as C:\, D:\etc.We can easily access a file, folder or drive with the help of windows Explorer.

Windows Explorer is further divided into two panes:

1. Left Pane

2. Right Pane

Left pane of Windows explorer is also called **Navigation Pane**. We can see Drives, folders and other locations (e.g. Network Location) in left pane. Any location shown in left pane can be selected by clicking on it. When a drive, folder or any network location is selected in the left pane, the detail of the same can be seen on the right pane of windows explorer. The following figure shows the different components of Windows Explorer:
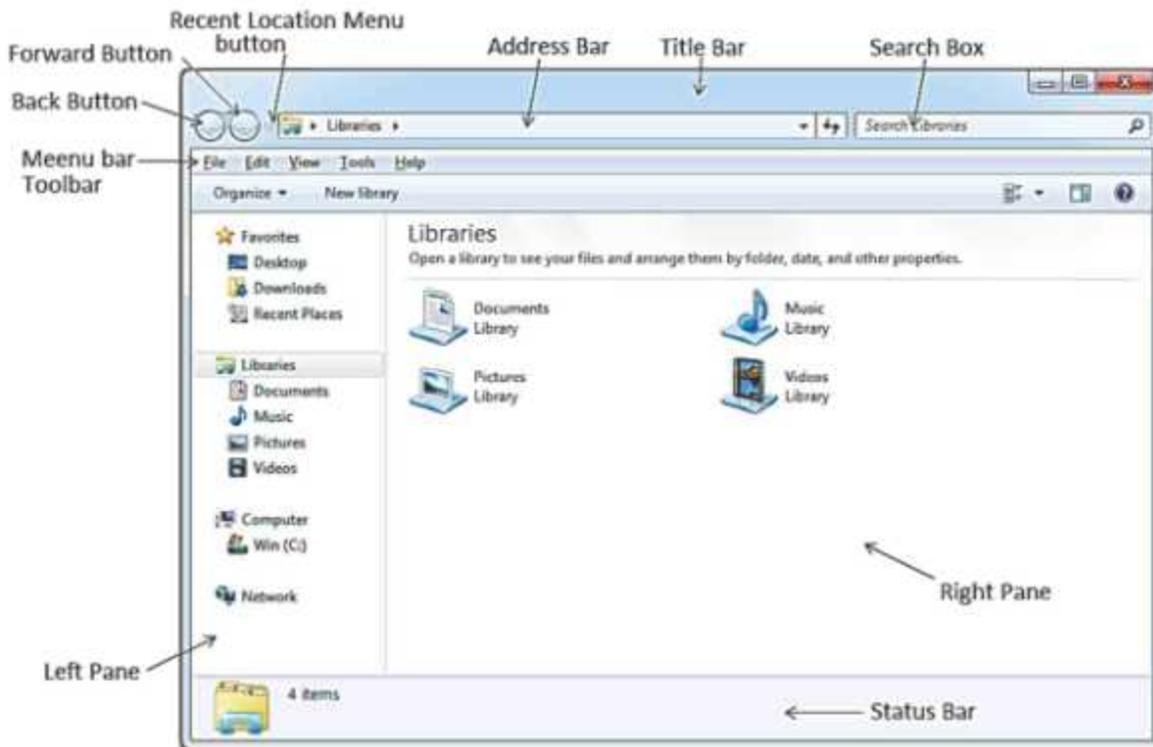
Fig 2.1 Different parts and Panes of Windows Explorer.

Parts of Windows Explorer are given below:

1. Title bar

2. Back and forward buttons and a Recent Location Menu button

3. Address Bar

4. Search Box

5. Menu bar

6. Toolbar

7. Status bar

2.3.1 Hierarchy of locations

The folders and drives on your computer, together with any networked computers and their shared folders, drives and printers etc. form a tree like hierarchy. This contains the following Items:
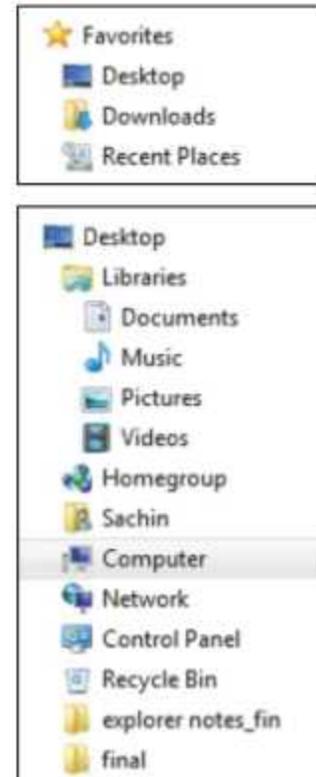

Fig 2.2 Hierarchy of Locations

1. Favorites : In this hierarchy, FAVORITE is the topmost folder. it contains Desktop, Download and Recent Places Items. See fig 2.3

Favorites
- Desktop
- Downloads
- Recent Places

Fig 2.3 Favorites

2. Libraries : By default this contains the four libraries: Documents, Music, Pictures and Videos.See fig 2.4.

Libraries
- Documents
- Music
- Pictures
- Videos

Fig 2.4 Libraries

3. Personal Folder : The name of your personal folder is your username which you use for logging in, and by default it contains the following folders: Contacts, Desktop, Downloads, Favorites, Links, My Documents, My Music, My Pictures, My Videos, Saved Games, and Searches.See fig 2.5.
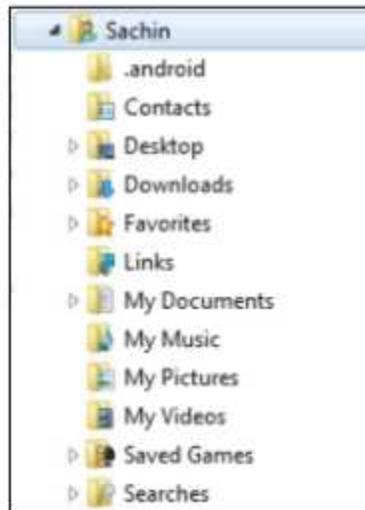
Sachin
- .android
- Contacts
- Desktop
- Downloads
- Favorites
- Links
- My Documents
- My Music
- My Pictures
- My Videos
- Saved Games
- Searches

Fig 2.5 Personal Folder

4. Computer : It contains all the disks like C: , D: , E: , F: , G: etc. which are contained in or attached to the computer, along with devices like USB memory sticks and cameras.See fig 2.6

Computer
- Floppy Disk Drive (A:)
- Local Disk (C:)
- DISK1_VOL2 (D:)
- DISK1_VOL3 (E:)
- DISK1_VOL4 (F:)
- DVD RW Drive (G:)

Fig 2.6 Computer

5. Network : It contains other computers and devices if you are connected to a local network. See fig 2.7.

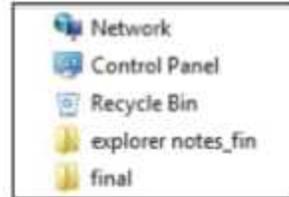
Fig 2.7Network

6. Control Panel : Control Panel is used to configure our hardware and software or to change the program settings etc.
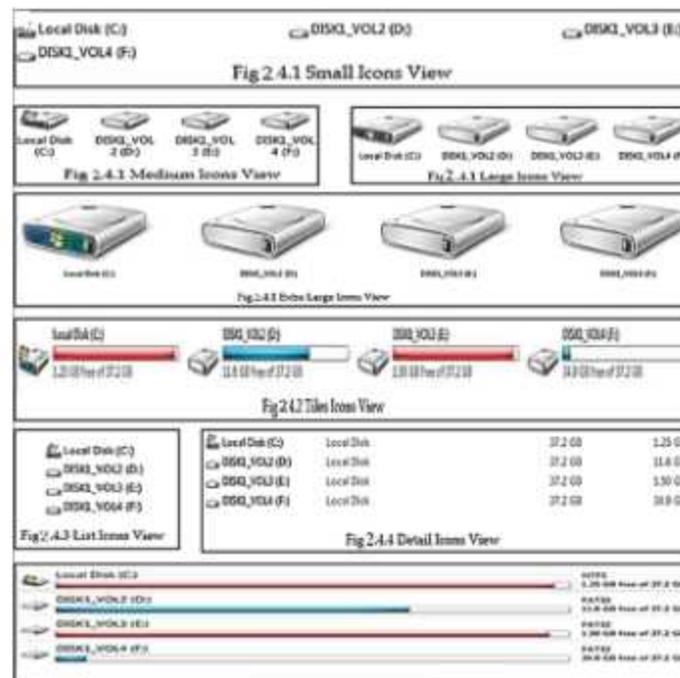

Fig 2.8 Control Panel

7. Recycle Bin : Items deleted by you go into the recycle bin.

2.4 VIEWS IN WINDOWS EXPLORER

Each location has a view setting, and this determines the layout of the items on the screen and the sort of information which is displayed for each item.

- **Small, medium, large and extra-large icons views.** The items are laid out as one or more rows, and each item consists of an icon with its name, see fig 2.4.1
- **Tiles Icons view.** The items are laid out as one or more rows, and each item consists of an icon, a name and some other information, see fig 2.4.2
- **List Icons view.** The items are laid out as one or more columns, and each item consists of a name, with a small icon just to its left, see fig 2.4.3
- **Details Icons view.** Each item consists of a row in a table. The first column contains a name, together with a small icon, and the other columns contain various properties such as size and date modified, see fig 2.4.4
- **Content Icons view.** The items are laid out column wise, and each item consists of an icon, a name and some other properties. This view is used by default for searches, see fig 2.4.5

2.5 WORKING WITH FILES AND FOLDERS

A **File** is the common storage unit in a computer. It can be defined as a set of related data or information that is being stored in secondary storage. All programs and data are written into a file.Each file has a primary name and extension name separated with dot (.). Primary name of data file is set by user while the extension name is set by the program in which it is created. For Example: In filename: "myfile.docx", dot (.) separates the primary name and extension name of the file. Here, "myfile" is the primary name and "docx" is the extension name of the file which shows the file is a word document file.

To organize files in computer systems, we use **Folders.** Folders are also called **"Directories".** A **Folder** may contain many other folders and files. A folder within another folder is called **Sub-Folder.** Following discussion shows how to work with files and folders in Windows based computer systems:

2.5.1 Selecting Items:

For copying and deleting items, we often need to select one or more items in the items view. Let's learn how to do this.

- **Selecting a single item :** If there are a number of items available and we want to select a single item then we can select by clicking on it.
- **Selecting all the items :** If we want to select all the items then Press **Ctrl + A** keys together or choose "Select All" option from Edit Menu in Menu bar.
- **Selecting items using Shift key :** This method is used when we want to select items which are next to each other.
    1. Select the first item.
    2. Start holding down the **shift** key.
    3. Extend the selection using **up arrow**, or **down arrow**, or **home**, or **end** key.
    4. Release the **shift** key.

- **Selecting items using Ctrl key :** This method is used when we want to select items which are not next to each other.
  1. Select the first item.
  2. Start holding down the **ctrl** key.
  3. Move up or down the list using **up arrow**, or **down arrow**, or **home** or **end key**. To change an item from unselected to selected, or from selected to unselected, press **spacebar.**
  4. Release the **ctrl** key.
- **Inverting the selection :** Choose "Invert Selection" from the Edit Menu: all the items which were selected are deselected, and all the items which were not selected become selected.

2.5.2 Creating a New Folder

When we create a new folder, it's created in the current location.

1. Open the File menu, then open the New sub-menu and choose **New Folder.**

   OR

   Press **Ctrl + Shift** + N keys together.

   OR

   Right click from mouse, then left click **New** and Left click on **Folder** option from opened menu.

2. Type a name for the folder, and press **Enter key.**

2.5.3 Renaming an Item

To rename an item:

1. Select an item.
2. Choose Rename from the item's context menu or press **F2** key from keyboard.
3. The item's name appears temporarily in an edit box. If the item is a folder or library, then the whole name is selected, so we have to just type in a new name to replace the old name. If the item is a file, then the entire name except for the extension (.doc or .pdf etc.) is selected. So if we type in a new name, we shouldn't include the extension, because the original extension should not be overwritten.
4. Press **Enter** key oralternatively press **Esc** to cancel the rename.

2.5.4 Deleting an Item

Delete option is used to delete a file or folder. Deleted files or folders move to Recycle Bin. The Steps to delete file or folder are as follows:

1. Click on the file or folder to be deleted.
2. Press the delete key of the keyboard. A message will appear which will confirm the files to be deleted.
3. Click on "Yes".

2.5.5 Copying items using Copy and Paste

1. Select the items that we want to copy.

2. Choose **Copy** option from the Edit menu or press **Ctrl** + C keys.

3. Specify the destination location to paste files

4. Choose **Paste** from the Edit menu or press **Ctrl** + V to paste the items.

2.5.6 Moving items using Cut and Paste

We can move items from one place to another. It involves exactly the same steps as copy and paste, which was described earlier. The difference between "copy & paste" and in "cut & paste" is that while using copy command a duplicate copy of the selected item is created and it is placed on new location while in cut and paste, the original item is moved from its location. Let's learn the steps for doing so:

1. Select the item we want to cut.

2. Choose **Cut** from **Edit** menu or Press **Ctrl+X** keys from keyboard.

3. Specify your destination location to paste files

4. Choose **Paste** option from **Edit** menu or Press **Ctrl+V** keys.

2.5.7 Copy items using "Send to"

The "Send to" sub menu provides a convenient way of copying one or more items to a number of locations and programs. Let's learn the steps for doing so:

1. Select the items we want to copy.

2. Right click on the item, then open the **Send** to sub-menu, and choose a destination location. By default, the **Send** to sub menu contains the following destinations:

   - Compressed (zipped) folder.
   - Desktop (create shortcut).
   - Documents library.
   - Fax and mail recipients.
   - Devices with removable storage, for example: USB memory sticks.

2.6 CUSTOMIZING DESKTOP

Windows lets us to customize or personalize the look of the screen. In Windows 7, we customize the look of the screen using Personalization dialog.

If our computer has different user accounts, the changes that we make in the Display dialog will apply only to the current user we are logging in. Let's see how to do this:
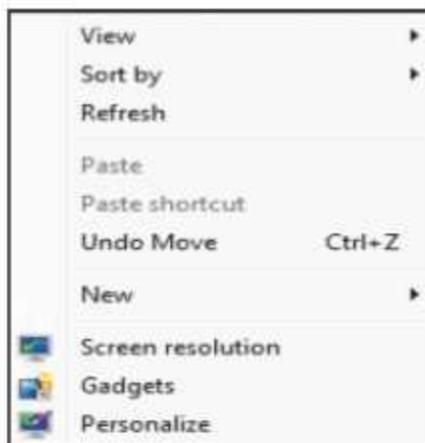

Fig 2.12 Personalize

Step 1 : Right click on a blank area of the desktop to get the context-sensitive menu.

Step 2 : Left click on Personalize.

The Personalization dialog shows themes and has links at the bottom and left for other choices.

Fig 2.13 Customizing Desktop

1. Themes : A theme is a combination of pictures, colors, and sounds on our computer. It includes a desktop background, a screen saver, a window border color, and a sound scheme. Some themes might also include desktop icons and mouse pointers.

2. Desktop Background : Desktop background primarily consists of wallpaper. Wallpaper is a background pattern or picture against which desktop menus, icons, and other elements are displayed and moved around. A wallpaper image can be in a JPEG or a GIF file format. Wallpaper is commonly used in Microsoft Windows. Each operating system provides several pre-installed wallpaper images for the user to choose from. A user can also change the wallpaper as per his/her choice.

Steps to change background:

1. Right click on the empty area of the desktop.

2. Click on Personalize option to open personalize dialog box.

3. Click on the Desktop Background option in this dialog box.

4. Select any picture for the background.

5. Click on the Save Changes button.

3. Screensaver : A screen saver is a software program that becomes activated after the computer is not in use for a specified duration of time. A screensaver basically consists of an animated images. Screensavers were originally designed to help prevent phosphorus coating of older monitors from being burned.

Steps to change background:

1. Right click on the empty area of the desktop.

2. Click on personalize option to open personalize dialog box.

3. Click on the Screen Saver option in this dialog box.

4. Select your desired Screen Saver.

5. Click on Apply button.

6. Click on OK button.

Points To Remember

1. Windows Explorer is an important application. It connects us with the files and folders present in computer.

2. Press windows key → Click on All Programs → Accessories → Windows Explorer

3. Windows Explorer has two panes-left Pane and right Pane.

4. Left Pane is also known as Navigation Pane that has drives, folders and network location.

5. You can cut, copy, delete or rename the files or folders with the help of windows explorer.

6. By default there are four libraries: documents, music, pictures, and videos.

EXERCISE

1. Multiple choice questions.

I. Windows Explorer has two panes. These are_____ and _____

    a) First, Second   b) Left, Right

    c) Top, Bottom   d) File, Folder

II. _____ view tells about size, type and date of modified of a file.

    a) Details   b) Tiles

    c) List   d) Content

III. _____command is used to move an item from its place.

    a)   Copy   b)   Paste

    c)   Cut   d)   Delete

IV. A _____ is a combination of pictures, colors, and sounds on our computer

    a)   Background   b)   Desktop

    c)   Screensaver   d)   Theme

V. A _____ is a software program that becomes activated after the computer is not in use for a specified duration of time.

    a)   Background   b)   Desktop

    c)   Screensaver   d)   Theme

2. Very Short Answer Type Questions

I. Which window application is used for management of files?

II. What do we call a folder inside another folder?

III. What is a method of opening widows explorer?

IV. Write the name of any default library of window.

V. Which option is used to make a duplicate of an item?

3. Fill in the blanks:

I. .... is a shortest key to create a New Folder.

II. .... is a shortcut key to rename a File or Folder

III. Deleted files or folders move to ....

IV. .... is a combination of pictures, colors and sounds on our computer.

4. Short Answer type questions

I. How many panes are available in Window Explorer? Write their names?

II. Write the name of different parts of Window Explorer?

III. Define File and Folder?

5. Long Answer type questions

I. What is Windows Explorer? Give different ways to open windows explorer.

II. Explain different views of Windows Explorer.

III. What are the options to customize the Desktop in Windows Environment?

IV. How can we Copy items using 'send to' option?

Design the following Tree of Files and folders. Create a folder named "A" at any location. Open it and create a folder named "B" inside "A". Create two files in MS Paint and Save them in the folder named "B" with name "D" and "E". Draw anything within these files. After these steps, Copy "B" Folder and PAST at same location i.e. within "A" folder. Rename the new copied folder as "C". Open the folder "C" and delete the file named "E" and Rename the File "D" as "F".
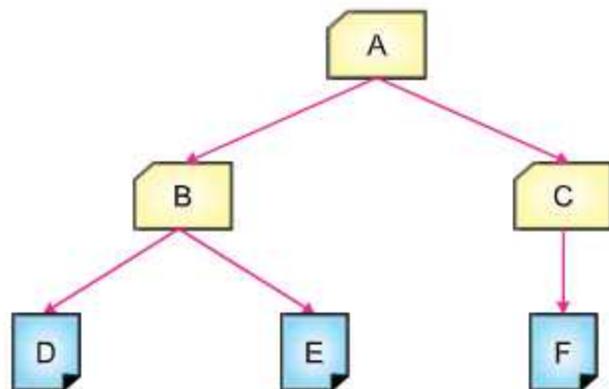
MICROSOFT WORD (PART - I)

CHAPTER - 3

3.1 INTRODUCTION

Word Processing is the widely used computer application which helps us to enter text from keyboard on a computer. With the help of Word Processing, we can create and save documents for future use. Main purpose of a Word Processing application is to produce documents. Its major advantage is that the documents can be easily edited before printing, without retyping the entire document.

3.2 WHAT IS WORD PROCESSING

Earlier typewriters, either manual or electronic were used to type documents. In those typewriters, words are printed directly on the paper. Text typed using a typewriter will have to be typed again if it contains errors. We have to type complete text document again if the same copy of existing document is needed again. Word Processing software has changed the way we can create text documents. In Word Processors, text can be seen on the computer screen, checked for errors and corrected, before it is printed.

3.3 FEATURES OF WORD PROCESSING

Various Features of Word Processing are:

1.   Documents can be saved for future use.

2.   Documents prepared in Word processing software can be checked for errors before printing.

3. We can format documents as per user's requirement and can give them better looks.

4. In Word Processing software we can use different fonts and font sizes in the same document.

5. Documents need not to be typed again as in the case of a typewriter.

3.4 DIFFERENT WORD PROCESSING SOFTWARE

Various Windows based word processing software packages are: Word Perfect, Notepad, WordPad and MS Word. Word Perfect is mostly used by publishing industry because of its more powerful features of creating print quality documents. Notepad is used to create simple text documents without any specific formatting. This feature makes the document size small and easy to share over networks. But Word Pad is used to create text documents with some formatting tools with different font styles, font sizes and bullet styles. MS-Word is widely used for office or home documents. It contains very good formatting features, which we need for creating attractive documents.

3.5 MS WORD

Microsoft Word is a word processing software package. It can be used for preparing letters, reports, and other documents. These documents can be saved and edited whenever required in future.

3.5.1 Special Features of MS Word

Following are the special features of MS Word:

1. It allows us to insert text anywhere in the document.

2. We can erase characters, words, lines, or pages as easily as we can cross them out on paper.

3. We can cut and paste a section of text from one place in a document to somewhere else. We can also duplicate a section of text.

4. We can define various page sizes and margins, and the word processor will automatically readjust the text so that it fits.

5. It allows us to direct the word processor to search for a particular word or phrase. We can also replace one group of characters with another.

6. We can change fonts within a document such as bold, italics, and underlining and can change the font size.

7. It allows us to embed graphs into a document.

8. MS Word allows us to specify customized headers and footers that the word processor will put at the top and bottom of every page. The word processor automatically keeps track of page numbers so that the correct number appears on each page.

9. It specifies different margins within a single document and to specify various methods for indenting paragraphs.

10. It provides the facility of macro which is a list of commands that save a lot of time.

11. It helps us in merging text from one file into another file by using feature Mail-merge. Generating mailing labels is one of the examples of using merges.

12. MS Word provides a facility to check the spelling of words. It highlights the words that are incorrect.

13. It helps us to automatically create a table of contents and index based on special codes that you insert in the document.

14. A built-in thesaurus allows us to search for synonyms without leaving the word processor.

3.5.2 How to Start MS Word

Start 🏁 → **All Programs** → **Microsoft Office** → **Microsoft Word**

OR

Type **"Word"** in search bar and press enter button from keyboard.

Search programs and files 🔍
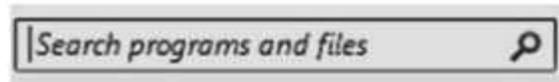
Fig:3.1 Search Bar

3.5.3 Parts of MS Word Window

Figure shows the main parts of MS Word Window:
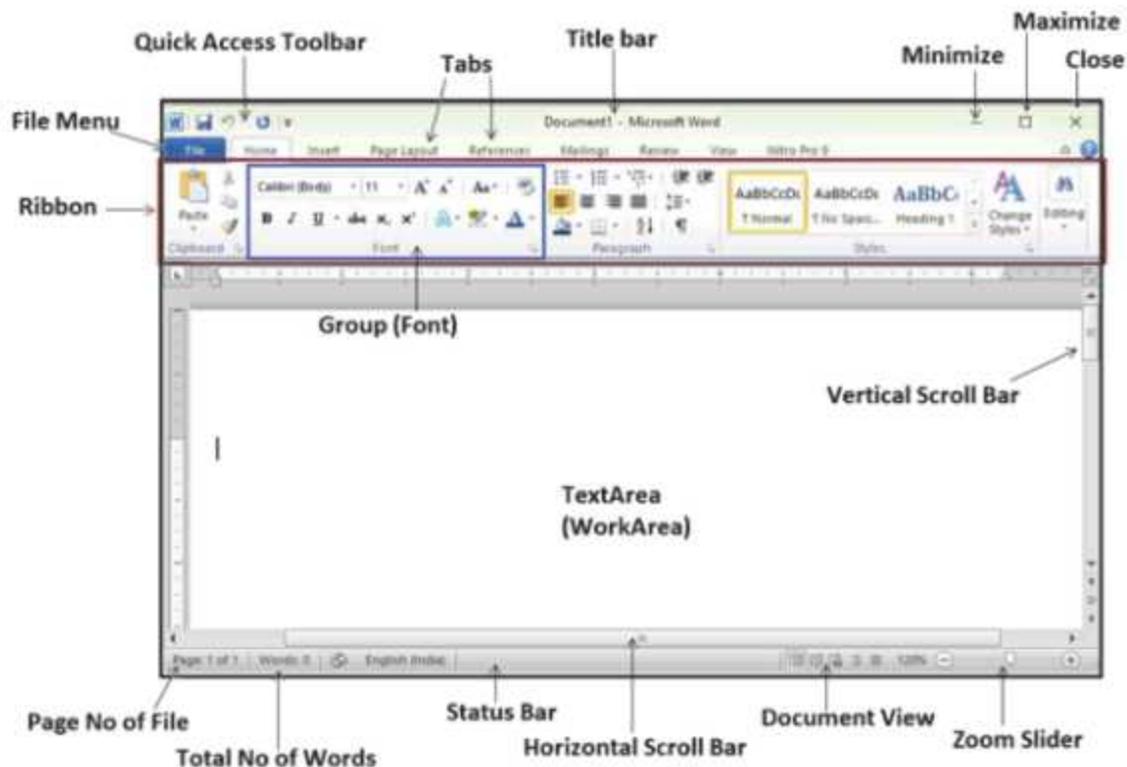
Fig:3.2 Parts of MS Word Window

3.5.3.1 File Menu : In the upper-left corner of the Word window is the File menu. When we click the File menu, a drop down file menu appears. We can use this menu to create a new file, open an existing file, save a file, and perform many other tasks.
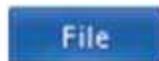

Fig. 3.3 File Menu

3.5.3.2 Quick Access Toolbar : Quick Access toolbar is present above the File menu. The Quick Access toolbar provides us access to commands we frequently use. By default Save, Undo, and Redo appear on the Quick Access toolbar.
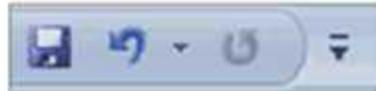

Fig. 3.4 Quick Access Toolbar

3.5.3.3 Title Bar : The Title bar displays the title of the document on which we are currently working. Word names the first new document as Document1. As we open additional new documents, Word names them sequentially. When we save our document, we can assign the document a different name.

Fig. 3.5 Title Bar

3.5.3.4 Tabs : Tabs are similar to the menu system of MS Word 2003.Instead of having dropdown menus, MS Word 2007 and higher versions have the Tab and Ribbon system. When we select a tab, it will display the Ribbon associated with that tab. Here everything has been changed into button form. Tabs are task oriented, such as Home, Insert, Page Layout, References, Mailings, Review, View and Add-Ins. Within each tab, the related sub-tasks are grouped together.
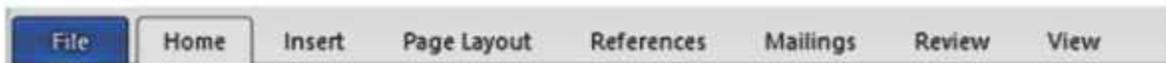

Fig. 3.6 Tabs

3.5.3.5 Ribbon : The tabs display a Ribbon. In Ribbon, there are many buttons that are grouped into categories such as Clipboard, Font, and Paragraph. In Microsoft Word 2007, we use the Ribbon to issue commands to tell Microsoft Word what to do. The Ribbon is located near the top of the screen, below the Quick Access toolbar. At the top of the Ribbon there are several tabs; clicking a tab displays several related command groups. Within each group there are related command buttons. We click buttons to issue commands or to access menus and dialog boxes.

Fig3.7 Home Tab Ribbon

3.5.3.6 Dialog Box Launcher : We may find a dialog box launcher at the bottom-right corner of every group. Clicking the dialog box launcher gives us access to additional commands via a dialog box.

Fig 3.8 Dialog Box Launcher in Font Group

3.5.3.7 Ruler : The ruler is found below the Ribbon. We can use the ruler to change the margins of our document quickly.

Fig 3.9 Ruler

3.5.3.8 Text Area : Below the ruler, the large area is called the text area. We can type our document in the text area. The blinking vertical line in the upper-left corner of the text area is the cursor. It marks the insertion point.

3.5.3.9 Vertical and Horizontal Scroll Bars : The vertical and horizontal scroll bars helps us to scrollour document up-down, and left-right by dragging the scroll-box located on the scroll bar. The vertical scroll bar is located along the right side of the screen. The horizontal scroll bar is located above the status bar.

3.5.3.10 Status Bar : The Status bar appears at the bottom of our window and provides information such as the current page and the number of words in our document.

Fig 3.10 Status Bar

3.5.3.11 Document Views : In Word, we can display our document in one of the following five views:

- **Print Layout :** The Print Layout view shows the document as it will look when it is printed.

- **Full Screen Layout :** Reading Layout view formats our screen to make reading our document more comfortable.

- **Web Layout :** Web Layout view enables us to see our document as it would appear in a browser such as Internet Explorer.

- **Outline View :** Outline view displays the document in outline form

- **Draft View :** Draft view is the most frequently used view. We use Draft view to quickly edit our document.

Fig3.11 Document Views

3.5.3.12 Zoom Slider : The Zoom Slider is convenient if we are working in a zoomed-in view and want to zoom out. However, we cannot zoom in on a particular spot, as we can do with the Magnifier.

Fig. 3.12 Zoom Slider

3.6 CREATING A NEW DOCUMENT

To open a new document, follow one of the following methods:

- Click the **New** Document button on the menu bar and choose Blank Document Option.

OR

- Press **CTRL+N** keys from the keyboard.

3.7 OPEN AN EXISTING DOCUMENT

To open an existing document, follow one of the following methods:

- Click the **Open** option from **File** menu.

OR

- Press **CTRL+O** keys from the keyboard.

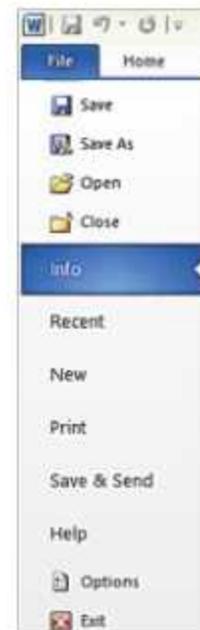Each of the above method will show the Open dialog box. Choose the file and click the Open button.

Fig. 3.13 File Menu

3.8 SAVING A NEW/EXISTING DOCUMENT

To save a new or existing document that is opened, follow one of the following methods:

- Click the **Save** option from the File menu.

OR

- Press **CTRL+S** keys from the keyboard.

If the document is already named and saved earlier, it will simply save the document. On the other hand, if the file is a new document then it will prompt us by opening Save As dialog box.

Select the folder where we want to place our document, type the name of the document in File Name: box and then click SAVE.
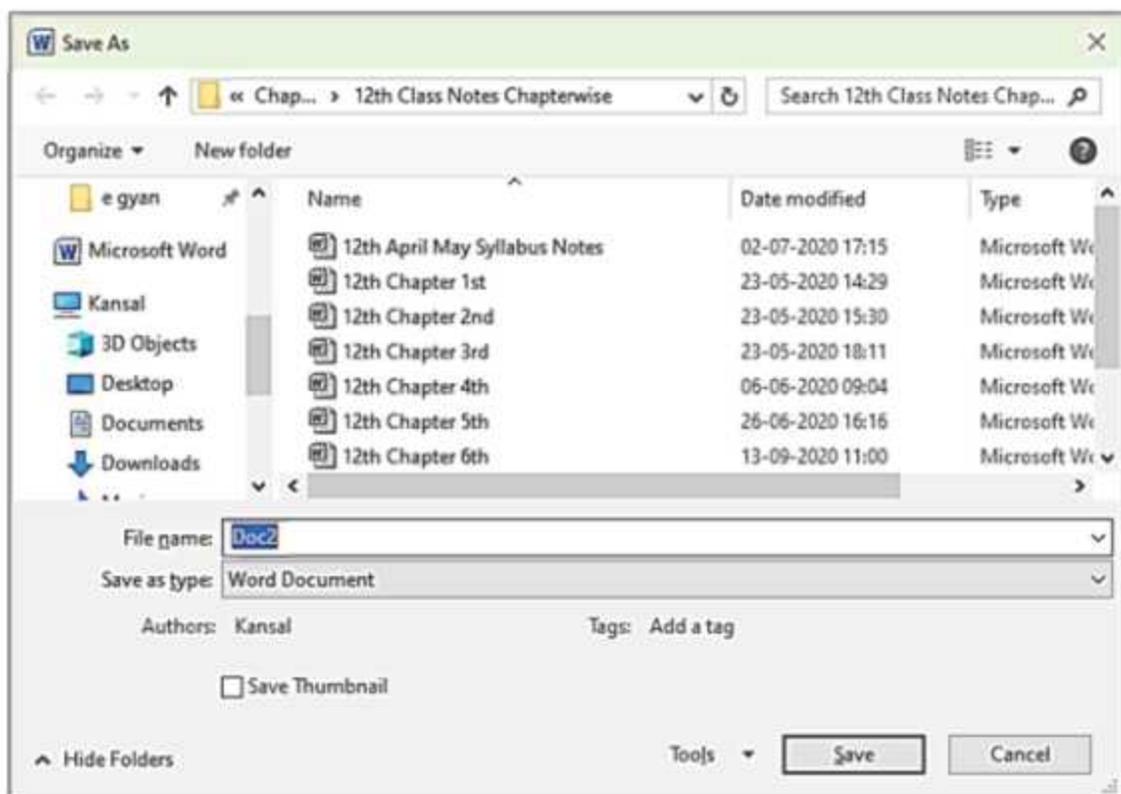
Fig. 3.14 Save As dialog box

Points To Remember

1. In Word Processors, text can be seen on the computer screen, checked for errors and corrected, before it is printed.

2. Various Windows based word processing software packages are: WordPerfect, Notepad, WordPad and MS Word.

3. A dialog box launcher is available at the bottom-right corner of every group.

4. Below the ruler, the large area is called the text area. We can type our document in the text area.

5. The Print Layout view shows the document as it will look when it is printed.

6. Draft view is the most frequently used view. We use Draft view to quickly edit our document

EXERCISE

1. **Multiple choice questions:**

   I. Ctrl + S is used to _____.

   (a) Save   (b) Open

   (c) New   (d) Close

II. Below the ruler, the large area is called the _____.

    (a)   Text Area   (b)   Open Area

    (c)   Close Area   (d)   All of these

III. There are two scroll bars in a word document _____ and _____.

    (a)   Horizontal, Vertical   (b)   Left, Right

    (c)   Upper bar, Lower bar   (d)   None of these

IV. To open a new document, Press _____ keys from the keyboard

    (a)   Ctrl + O   (b)   Ctrl + N

    (c)   Ctrl + S   (d)   Ctrl + V

V. The _____ view shows the document as it will look when it is printed.

    (a)   Print Layout   (b)   Draft

    (c)   Outline   (d)   Full size

2. Fill in the blanks:

I. Dialog box launcher or.................... option is present at the bottom-right corner of every group?

II. .... is a name of top most bar of Word window.

III. .... view of MS Word displays the document in the same way as we get it after printing.

IV. .... is the shortcut to create a New document.

V. .... layout view shows the Outline of a Document.

3. Short Answer type Questions:
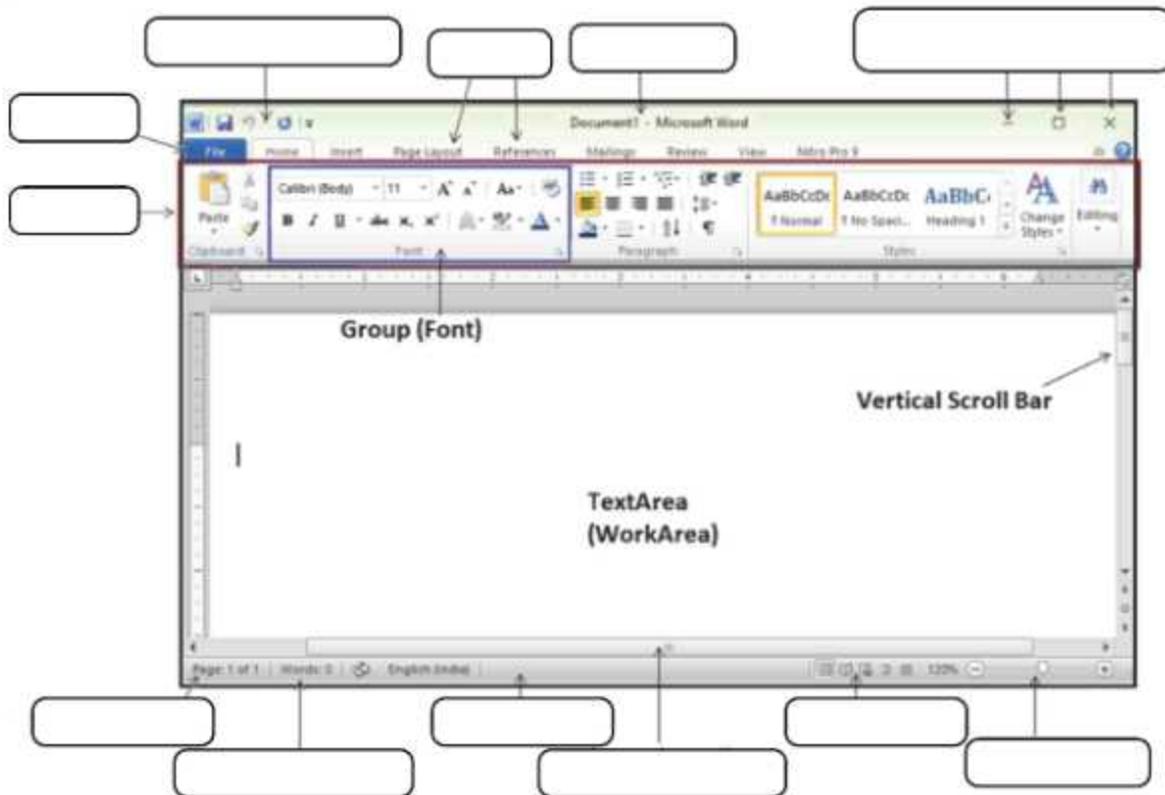
I. What is a Word Processor?

II. Write the name of some Word Processing Software.

III. How to start the MS Word?

IV. Write the name of different Parts of MS Word Window.

V. Define the Text Area.

4. Long Answer type Questions:

I. Explain the Special Features of MS Word

II. Explain Document Views in MS Word

Activity

Write the names of components of Word Window.

Document1 - Microsoft Word

Group (Font)

Vertical Scroll Bar

TextArea
(WorkArea)

CHAPTER - 4

MICROSOFT WORD (PART - II)

INTRODUCTION

Sometimes we need to create, design and organize effective documents. For this we need to know how to format text. In addition, to make our document more appealing, we can format text in our document. Formatted text can draw the reader's attention to specific parts of the document and help communicate our message.

In this lesson, we'll learn to format the font size, style, and color; high light the text; and use the bold, italic, underline, and change case etc. commands.

4.1 SELECTION OF TEXT

For editing in MS Word, Selection of text plays an important role in editing of a particular document. Whenever we want to change the text of our document or want to apply formatting, we will first need to select the text that we want to edit or format. Once we select the text, it will

be highlighted in blue colour as shown in figure below. This selected text is ready to accept our change.

Text is highlighted

Fig: 4.1: Selection of text

Without selection of text, we cannot edit and format the given text. We can do the selection in the following ways:

- **Using mouse:**

  1. Take the mouse pointer in the starting of the text to be selected.

  2. Left Click the mouse and hold it down, now drag the mouse over the text to select it.

  3. Release the mouse button. The text will be selected.

  Other shortcut ways to Select Text with the help of Mouse:

  1. To select a whole **word, double** click on it.

  2. To select a whole **paragraph, triple** click anywhere in the paragraph.

- **Using keyboard**

  1. Take the cursor at the starting of the text to be selected.

  2. Keep the **Shift** key pressed and select the text by using **Arrow** keys.

4.2 HOME TAB

Home tab is the default tab in Microsoft Word. It displays the most commonly used commands in MS Word that includes Copy, Cut, and Paste, Bold, Italic, Underline, alignments etc. These commands are arranged in groups: Clipboard, Font, Paragraph, Styles and Editing.

Fig: 4.2 Home Tab

4.2.1 Clipboard Group

Clipboard Group is the first group of Home tab in Microsoft Office. This group contains four options such as Paste, Cut, Copy, and Format painter.

4.2.1.1 Copy/Cut Text : If we would like to copy/move the text from our document, we have to use copy/cut and paste commands in the word document. First of all, we have to select the text which want to copy or move, then perform one of the following method:

- Go to **Clipboard** group in **Home** tab. Click **Cut or Copy** option in the Clipboard group as per requirement.

OR

- Do **Right click** of mouse on the selected text and then click on **Cut or Copy** option from the popup menu.

OR

- Press **Ctrl+X (for Cut) or Ctrl+C (for Copy)** simultaneously from the keyboard.

4.2.1.2 Pasting Text : After performing Copy/Cut operation on the selected text, we need to Paste it somewhere. Move the cursor to the location where we want to put our text that has been copied / cut, then perform one of the following method of pasting text:

- In the **Home** tab, click the **Paste** Option in the **Clipboard** group.

OR

- Do **Right** click of mouse and then click on the **Paste** option from the popup menu.

OR

- Press **Ctrl+V (for Paste)** simultaneously from keyboard.

Fig: 4.3Clipboard group options

4.2.1.3 Format Painter : The **Format Painter** feature allows us to quickly copy the format of selected text in our document. Following are the steps to use the Format Painter in MS Word:

1. Select the formatted text or graphic whose format we want to copy

2. Click the **Home** tab → single click **Format Painter** in the **Clipboard** group,the pointer will change to a paintbrush icon

3. Click on the text or graphic on which we want to apply the copied format

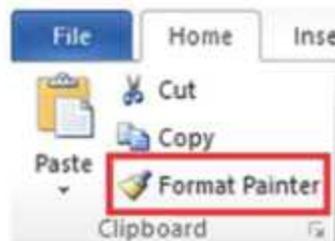4. To cancel formatting, press ESC or click on the **Format Painter** command again

Fig: 4.4 Format Painter

OR

1. Press **Ctrl + Shift + C** simultaneously from keyboard to **copy the format** of selected text.

2. Press **Ctrl + Shift + V** simultaneously from keyboard to **apply the format** on newly selected text.

> **Important Tip :** Double-click the Format Painter button if we want to apply the copied format on multiple selections in our document.

4.2.2 Font Group

Formatting helps us to change the appearance of our document. Formatting a document includes modifying text size, font face, color, style, alignment, line spacing, graphics and many more things. Microsoft Word provides many easy ways to add creative touches to any document. **Font** Group of **Home** tab allows us to change font style, size, color and many other elements.

4.2.2.1 Font face and Font size : A font is a set of printable or displayable **text characters** in a specific **face** and **size**. A **font face or type face** is a design that defines the overall look of characters. Arial and Times New Roman are the examples of font faces or type faces.
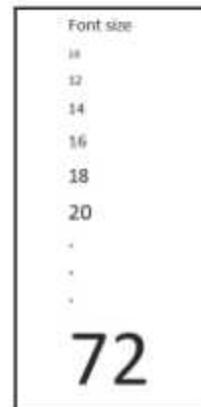

Fig 4.5 Font Face   Fig 4.6 Font Size

Steps to Change Font face and Size of Text:

1. Select the text.

2. Click on the drop-down arrow of Font option in Font group and select the desired font face from the drop-down menu. Similarly, click drop down arrow of Font Size option and select the font-size as per the requirement
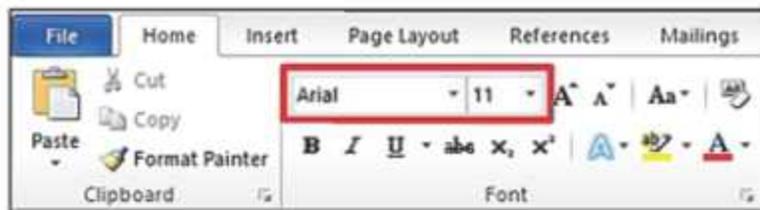

Fig 4.7 Font Face and Font Size

Important Tip : We can also grow (increase) and shrink (decrease) font sizes of text by clicking **Grow Font** optionand **Shrink Font** option available in the Font group.

OR

Press **Ctrl+[(decrease size)and Ctrl+] (increase size)** keys simultaneously from keyboard to change the size of text.

4.2.2.2 Font styles : While text is selected we can also click on the bold, italics or underline commands of **Font** group in **Home** tab to modify the **text style**. There are three basic font styles that can be applied on the text. These are as following:
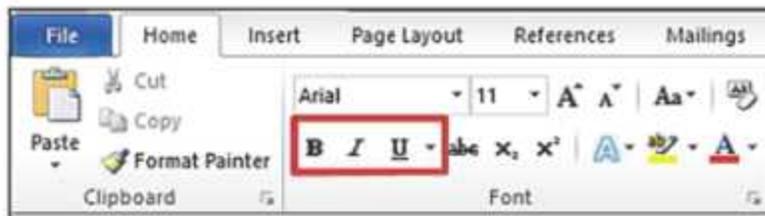

Fig: 4.8 Bold, Italic, Underline

- **Bold (Ctrl + B) :** This font style is used to set text in bold format, it means using thicker letters.

- **Italic (Ctrl + I) :** This font style is used to write text in italic format, it means using slanted letters.

- **Underline (Ctrl + U) :** This font style is used to write text in underline format, it means draw a horizontal line underneath the letters.

4.2.2.3 Font color : If we want to type text in any color of our choice then we need to choose **Font Color** option in font group of home tab. There are following steps to change font color of text.

1. Select the text.

2. Click on the **Home** tab. Choose the **Font Color** option in the Font group. The **Font Color** drop down box appears.

3. Move the mouse pointer over the various font colors. A live preview of the color will be shown in the document.
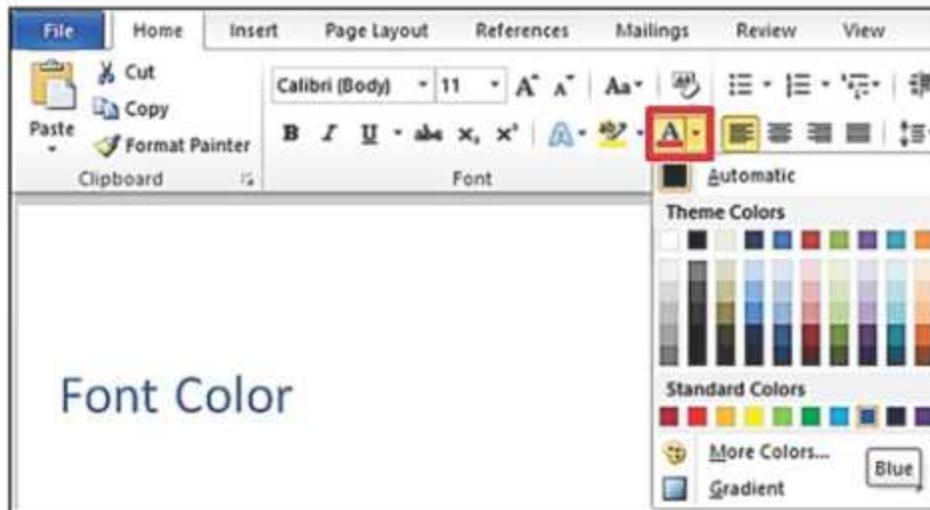
4. Select the color according to our choice.

Fig: 4.9 Font color

4.2.2.4 Text Highlight color : When we use text highlight color option, it means that the text shows like it was marked with a highlighter pen. Steps to use the text highlight color are following:

1. Select the text that we want to highlight.
2. On the Home tab, move the arrow next to **Text High light Color** in the Font group.
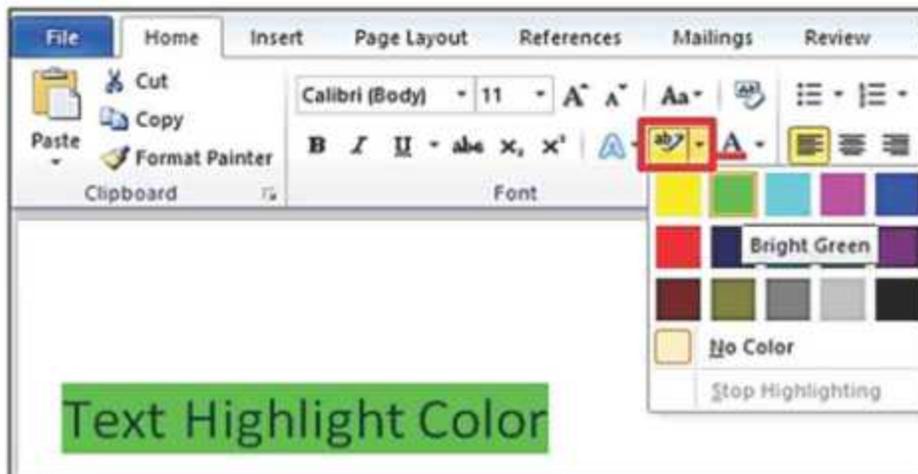3. Click the color that we want to apply.

Fig: 4.10 Text Highlight Color

4.2.2.5 Text Effects : Text effects include Outline, shadow, glow, and reflection.

Adding Text effects:

1. Select the text that we want to add an effect to.
2. On the **Home** tab, click **Text Effect** tin the Font group.
3. Click the effect that we want.

4. For more choices, point to Outline, Shadow, Reflection, or Glow, and then click the effect that we want to add.
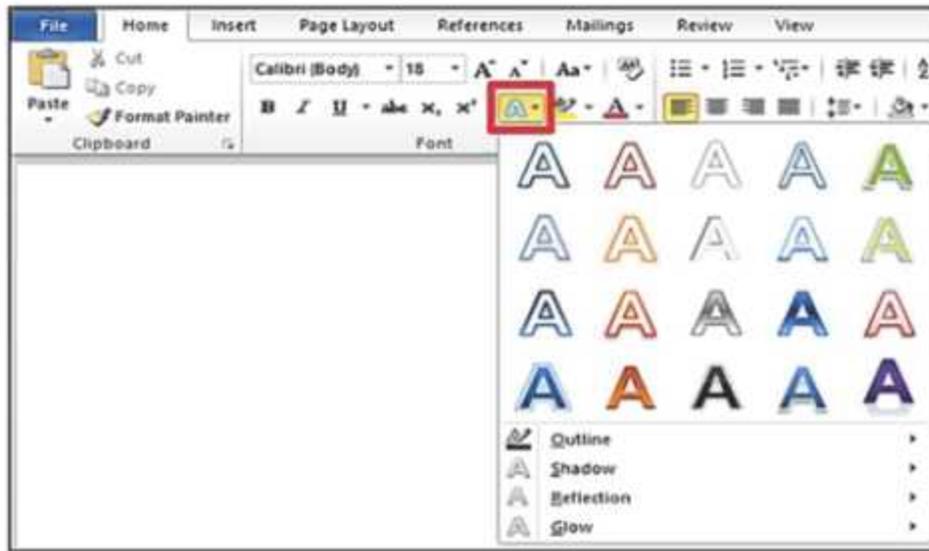

Fig: 4.11 Text effects

Remove text effects:

1. Select the text from which we want to remove text effect.

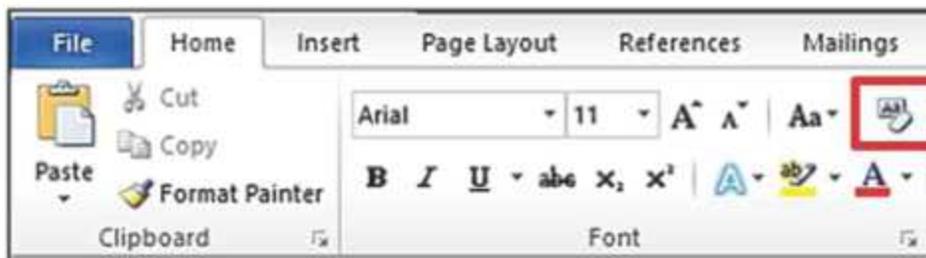2. On the **Home** tab, click Clear **Formatting** in the **Font** group.

Fig: 4.12 Remove text effects

4.2.2.6 Change Text Case : If we type some text in any case like in lower case and after some time, we feel that the text should be in upper case then no need to delete text, because Word provides us a facility to change text in any case like Sentence case, Lowercase, UPPERCASE, Capitalize Each Word and Toggle case.

We can change the case of selected text in a document by clicking a single button called **Change Case** on the ribbon.

Steps to Change the Case of Text:

I. Select the text for which we want to change the case.
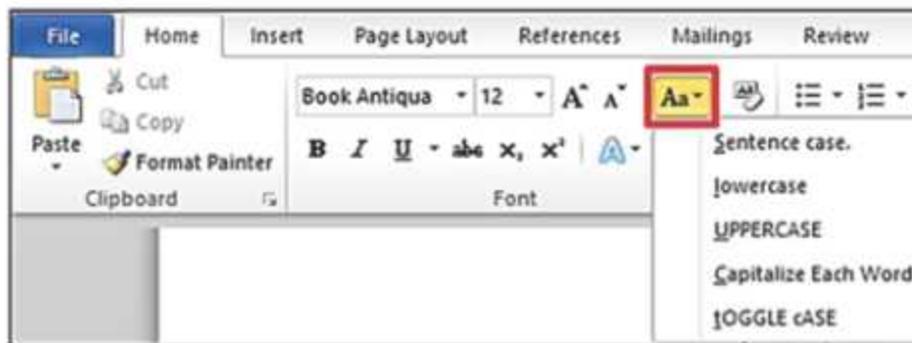
II. On the Home tab, click Change Case in the Font group.

Fig: 4.13 Change Case

iii. Choose an option from the dropdown list, which includes: Sentence case, Lowercase, UPPERCASE, Capitalize Each Word and Toggle case.
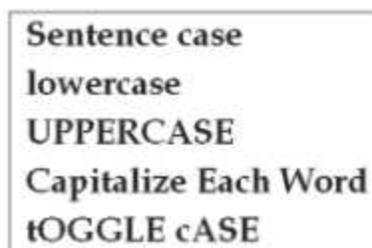
Sentence case
lowercase
UPPERCASE
Capitalize Each Word
tOGGLE cASE

Fig: 4.14 Change Case

We can also change the case of selected text by using the shortcut key Shift+F3

Important Tip : We can also work with the font group options with the help of Font dialog box. "Font" dialog box can be opened either by clicking on the Font dialog box launcher in the bottom right corner of Font group OR Press Ctrl+D to open it.
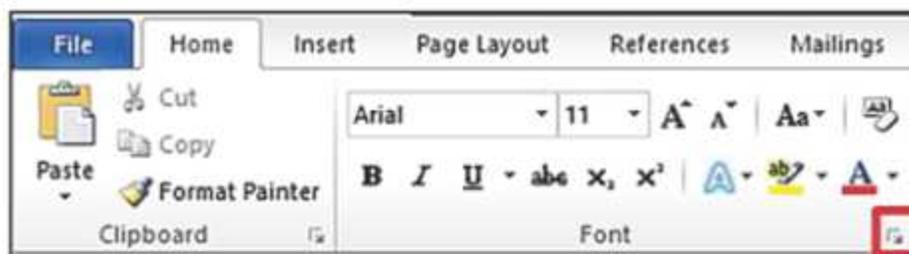

Fig: 4.15 Font dialog box launcher

4.2.3 Paragraph Group

This group of home tab provides many formatting options to our paragraphs such as alignments, line and paragraph spacing, bullets and numbering etc.

4.2.3.1 Bullets and Numbering : We can quickly add bullets or numbers to existing lines of text. Word can also automatically create lists if we start typing text with an asterisk or a number. Bullets and Numbering options in the Paragraph group of Home tab can also be used to create bulleted and numbered lists.

Insert Bulleted or Numbered List :

Click on the area where we would like our list to appear or highlight the text we would like to be in a list.

1. Go to the **Home** tab, in the **Paragraph** group, click **Bullets** or **Numbering.**
2. A bullet(s) or number(s) will be inserted.

Fig: 4.16 Bulleted or Numbered List

Important Tips:

*   To finish the list, press ENTER twice, or press BACKSPACE to delete the last bullet or number in the list.
*   Word automatically inserts the next bullet or number. (Press tab key if we want to create multilevel list)

4.2.3.2 Text Alignment : Alignment determines the appearance and orientation of the edges of the paragraph: left-aligned text, right-aligned text, centered text, or justified text, which is aligned evenly along the left and right margins.

Fig: 4.17 Text Alignments

Change Text Alignment:

1. Select the text we want to login.
2. Select one of the four **alignment options** from the **Paragraph** group on the Home tab.

    I. **Align Text Left(Ctrl + L)** : Aligns all selected text to the left margin

    II. **Centre(Ctrl + E)** : Aligns text an equal distance from the left and right margins

Aligns all selected text to the left margin
Aligns text an equal distance from the left and right margins
Aligns all selected text to the right margin
Aligns text equally on both sides and lines up equally to the right and left margins

Fig: 4.18 Text Alignments

III. Align Text Right(Ctrl + R) : Aligns all selected text to the right margin

IV. Justify(Ctrl + J) : Aligns text on both left and right sides; used by many newspapers and magazines

4.2.3.3 Adjusting Line Spacing : Adjusting the line and paragraph spacing will affect how easily our document can be read. We can **increase** spacing to improve readability, or **reduce** it to fit more text on the page.

In MS Word 2010, the default line spacing is 1.15 and default paragraph spacing is 10 points after each paragraph. The easiest way to change the line spacing for an entire document is to select the paragraphs or entire document that we want to change the line or paragraph spacing on.

To Format Line Spacing:

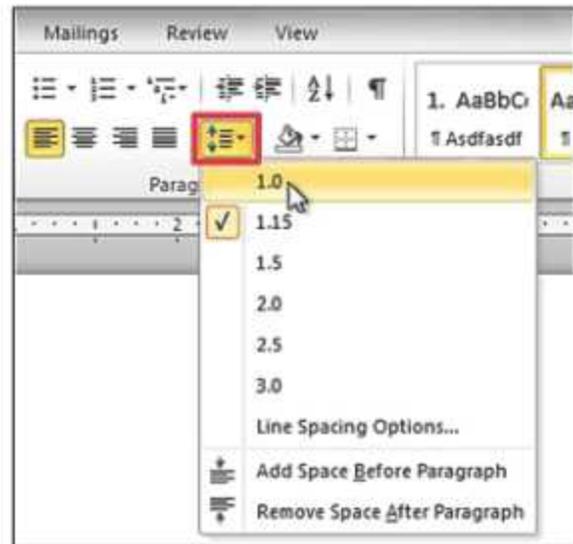
Fig: 4.19 Line and Paragraph Spacing

1. **Select** the text we want to format.

2. Click the **Line and Paragraph Spacing** command in the **Paragraph** group of **Home** tab.

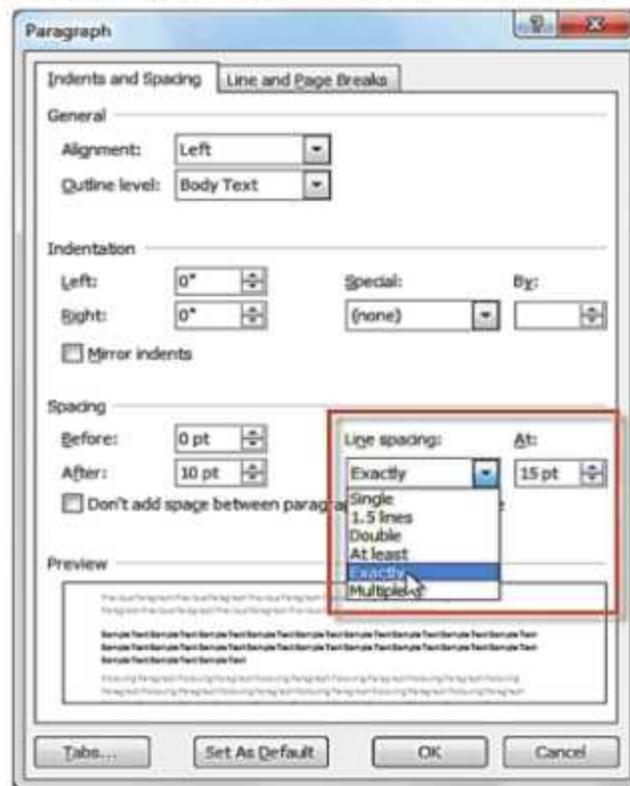3. Select the desired spacing option from the drop-down menu.

Fig: 4.20 Paragraph dialog box

4. From the drop-down menu, we can also select **Line Spacing Options** to open the **Paragraph** dialog box. From here, we can adjust the line spacing with even more precision.

Important Tips:

- We can also use short cut keys for adjusting **line spacing: Ctrl+1** is used for Single Line Spacing, **Ctrl+2** is used for double line spacing, **Ctrl+5** is used for 1.5 line spacing.

- We can quickly display the "Paragraph" dialog box (Indents and Spacing tab) by clicking on the dialog box launcher in the bottom right corner of this group.

- When we select **At least** or **Exactly** in the Paragraph dialog box, the line spacing is measured in **points.** Otherwise, it is measured in **lines.**

4.2.3.4 Shading : Microsoft Word provides features to apply border and shadings to our document. We can apply a border, shading or both around a single word, a selection of words, a paragraph, group of paragraphs, a single page, a section, or all pages. Simply, hit the Shading option to choose the shading style.
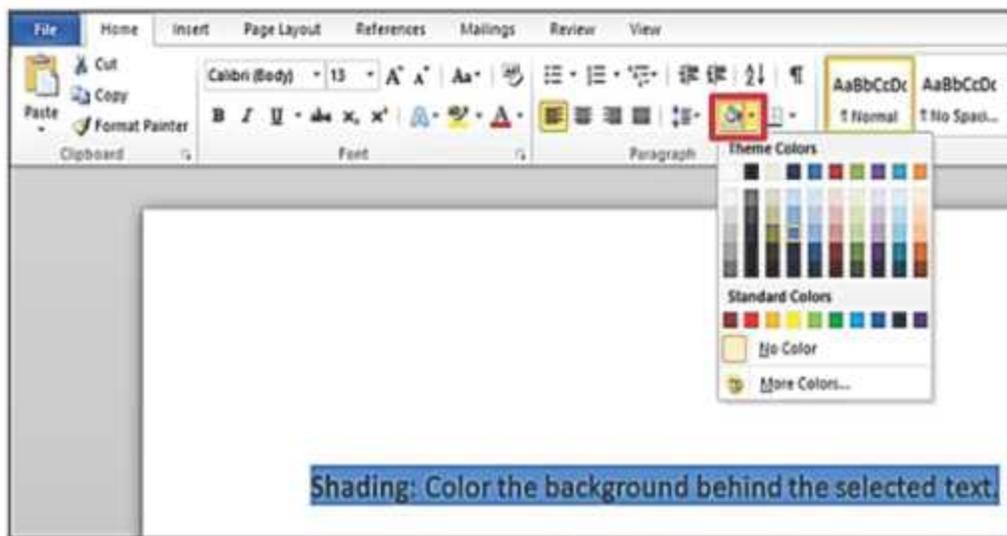
4.2.4 Editing Group

4.2.4.1 Find and Replace : When we are working with longer documents, it is difficult and time consuming to locate a specific word or phrase. Word can automatically search our document for specific word or phrase using the **Find** feature. It also allows us to change words or phrases using **Replace** feature.

Steps to Find Text:

1. From the **Home** tab, click the **Find** command. The **navigation** pane will appear on the left side of the screen.

Fig: 4.22 Find command

2. Type the text we want to find in the field at the top of the navigation pane.

3. If the text is found in the document, it will be highlighted in yellow, and a preview will appear in the navigation pane.

4. If the text appears more than once, we can click the **arrows** on the navigation pane to step through the results. We can also click the **Result Previews** on the navigation pane to jump to the location of a result in our document.

5. When we close the navigation pane, the highlighting will disappear.

Important Tip : Shortcut Key **Ctrl + F** can also be used to search text in the document.

Steps to Replace Text:

1. From the **Home** tab, click the **Replace** command. The **Find and Replace** dialog box will appear.

Fig: 4.23 Replace Command

2. Type the text we want to find in the **Find what** field.

3. Type the text we want to replace it with in the **Replace with** field.

4. Click **Find Next** and then **Replace** to replace text. We can also click **Replace All** to replace all instances within the document.
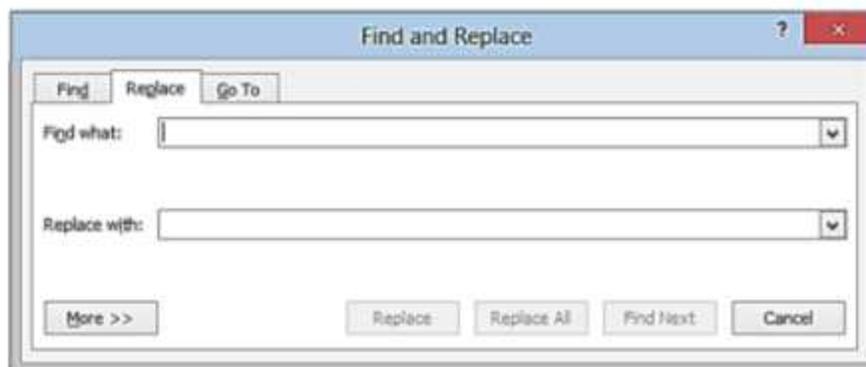

Fig: 4.24 Find and Replace dialog box

Important Tip : Shortcut Key Ctrl + H can also be used to open the Find and Replace dialog box to replace text within the document.

4.3 UNDO AND REDO COMMANDS

Undo command : It reverses the action that we have performed while editing. If we make an error in our document then we can correct it by click on the Undo command, it will remove the last thing we did. CTRL+Z shortcut is used to perform Undo operation in MS Word. Undo command is also available on the Quick Access Toolbar.

Fig: 4.25 Undo and Redo Commands on the Quick Access Toolbar

Redo Command : It reverses our last Undo action. We can reverse more than one action that has been undone. We can use Redo command only after Undo command. CTRL+Y shortcut is used to perform Redo operation in MS Word. Redo command is also available on the **Quick Access Toolbar.**

4.4 INSERT TAB

Insert tab is an important tab of MS Word which is right next to the Home Tab. This Tab is used to insert different features such as tables, pictures, clip art, shapes, charts, page numbers, word art, headers, and footers into a document.
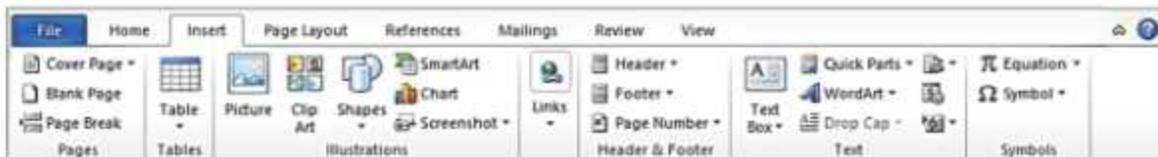
Fig: 4.26 Insert Tab

4.4.1 Pages Group

It is the first group of Insert tab.

4.4.1.1Page Break : Word automatically inserts a page break when we reach at the end of a page. If we want the page to break in a different place, we can insert a manual page break.

Steps to Insert a Page Break:

1. Move the cursor to the location from where we want to start a new page.

2. On the **Insert** tab, click **Page Break**in the **Pages** group.

Fig: 4.27 Page Break

Steps to Delete a Page Break : We cannot delete the page breaks that Word inserts automatically.We can only delete a page break that we have inserted manually
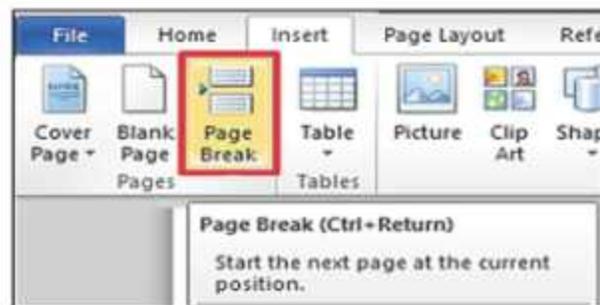
1. Go to **Home tab** and select **Show/Hide** option in paragraph group.

Fig: 4.28 Show/Hide Button

2. This displays page breaks (as shown below) while we're working in our document.

3. Double-click the page break to select it and then press Delete button from Keyboard.

4.4.2 Illustrations Group

This group allows us to insert Pictures, Clip Art, Shapes, SmartArt etc. in our document.

4.4.2.1 Picture/Clip Art : Pictures and clip art can be inserted or copied into a document from many different sources, including copied from a Web page, or inserted from a folder where you save pictures.

Steps to Insert Clip Art:

1. On the **Insert** tab, click on **Clip Art** in the **Illustrations** group.

2. A **Clip Art** task pane will appear on the right side of our screen. Type a word or phrase in the Search for box that describes the clip art that we want.

3. Click on Go button.

4. In the list of results, click on the clip art to insert it at current location in our document.
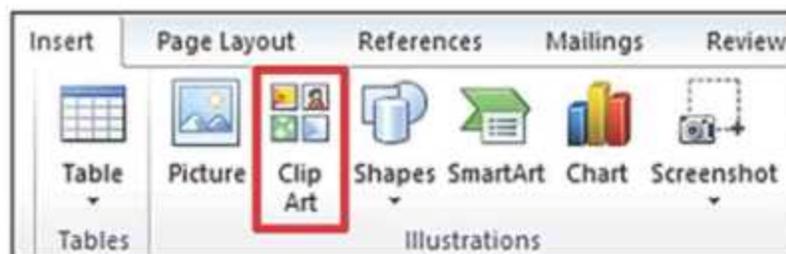

Fig: 4.29 Clip Art

Steps to Insert Picture:

Pictures that are saved in our computer can be inserted in our document by following these steps:

1. Click where we want to insert the picture in our document.

2. On the **Insert** tab, click **Picture** in the **Illustrations** group.

3. Locate the picture that we want to insert. For example, we might have a picture file located in **My Documents.**

4. Double-click the picture that we want to insert and it will appear in our document
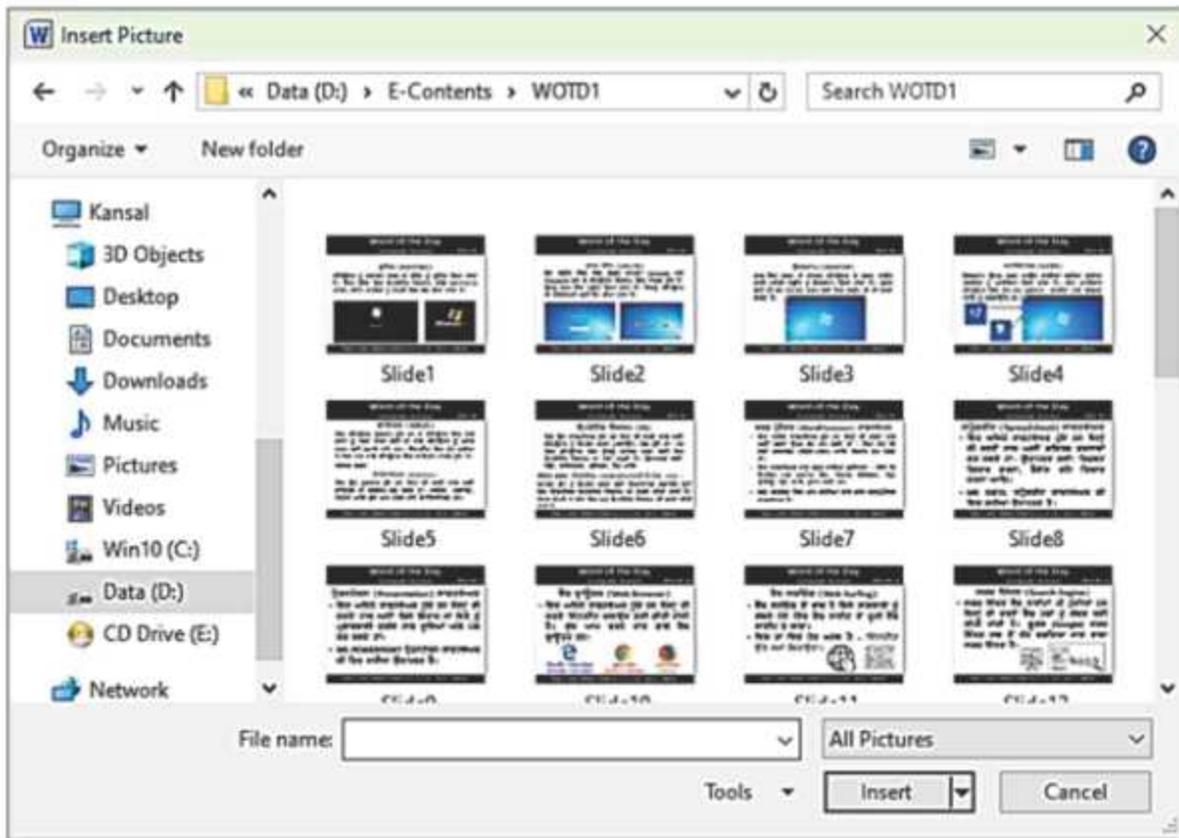
Fig: 4.30 Insert Picture dialog box

4.4.2.2 Shapes : We can add shape to our file or combine multiple shapes to make a drawing or a more complex shape. Available shapes include lines, basic geometric shapes, arrows, equation shapes, flowchart shapes, stars, banners, and callouts. After we add one or more shapes, we can add text, bullets, numbering, and Quick Styles to them.

Steps to Insert Shapes:

1. On the Insert tab, in the Illustrations group, click Shapes.

2. A drop down menu will appear, click the shape that we want.

3. Click anywhere in the document, and then drag to place the shape.
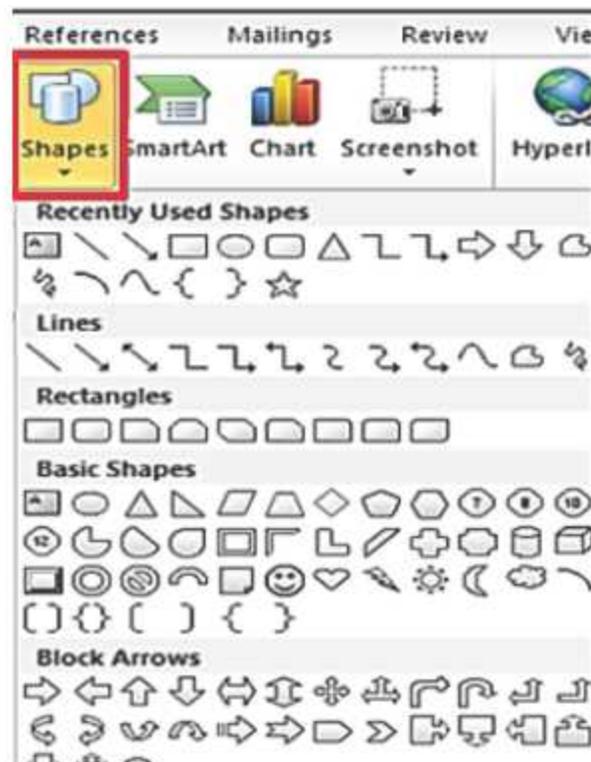
Fig: 4.31 Format Shapes

Steps to Insert Text to Shapes:

Once we added a shape, we may want to add text inside the shape. Following are the steps:

1. Right click on the shape
2. Clicks on the Add Text option from the popup menu and start typing.

Steps to Format Shapes:

Once we added a shape, we can also format it. After selecting a shape, a new tab called **Drawing Tools - Format** will appear. Following are the steps to format the shape object:

1. Click on the shape which we want to format.
2. Go to the **Drawing Tools - Format** tab and click the desired style in the **Shape Styles** group to apply the formatting.

Fig: 4.32 Format Shapes

4.2.2.3 Smart Art Graphic : A SmartArt graphic is a visual representation of information that we can quickly and easily create to effectively communicate our message or ideas. We can create SmartArt graphics in Word, Excel, PowerPoint, and Outlook. SmartArt graphics enables us to

create designer-quality illustrations with only a few clicks of our mouse. When we create a SmartArt graphic, we are prompted to choose a type of SmartArt graphic, such as **Process, Hierarchy, Cycle, 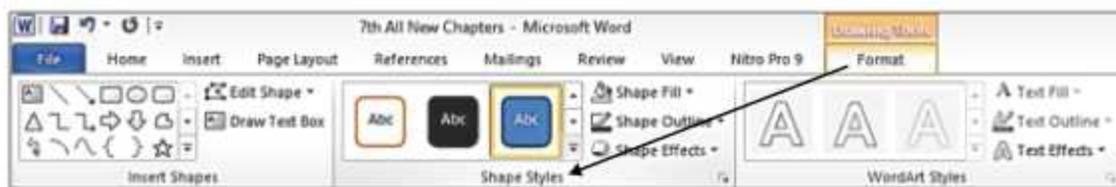or Relationship.** Each type of SmartArt graphics contains several different layouts. After we choose a layout, it is easy to switch the layout or type of a SmartArt graphic. Most of our text and other content, colors, styles, effects, and text formatting are automatically carried over to the new layout.

Steps to create a SmartArt Graphic:

1. On the **Insert t**ab, click **Smart Art** in the **Illustrations** group.

2. In the **Choose a Smart Art Graphic** dialog box, click the type and layout that we want.

3. Enter text by Clicking [Text] in the Text pane.
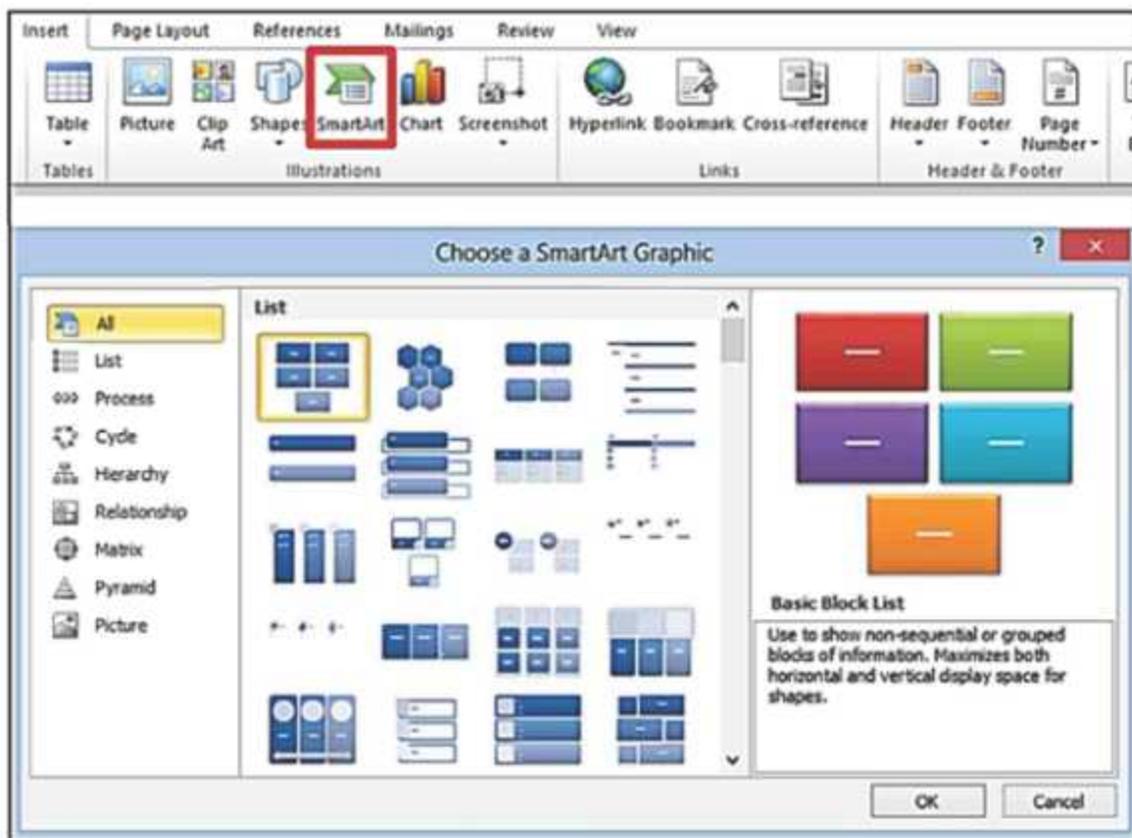
Fig: 4.33 SmartArt Graphic

4.2.3 Header & Footer Group

This group allows us to insert Header and Footer in our document. The **header** is a section of our document that appears in the **top margin**, while the **footer** is a section of the document that appears in the **bottom margin**. Headers and footers generally contain additional information such as **page numbers, dates, author's name etc.** Text entered in the header or footer will appear on **each page** of the document.

4.2.3.1 Headers and Footers : We can add headers, footers and page numbers in numerous ways. The simplest way is to double click on the top or bottom of the page and the header and footer area will appear. Enter the text we wish to be displayed at the top or bottom of every page.

Fig: 4.34 Headers and Footers

After typing text in the header or footer area, click on the **Close Header and Footer** button available on the **Design** tab (under Header & Footer Tools).
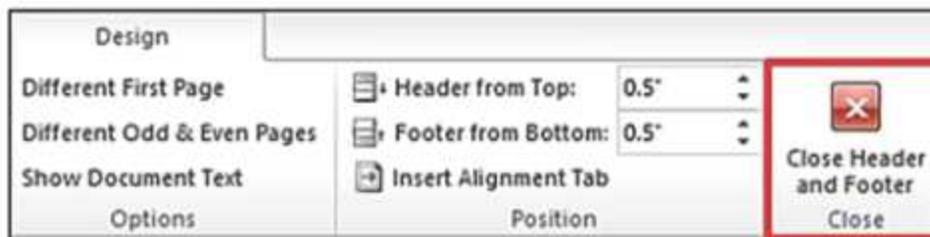
Fig: 4.35 "Close Header and Footer" button

Steps to add Header or Footer using Insert tab:

On the **Insert** tab, click **Header or Footer** in the **Header & Footer** group.

1. Select any header or footer of our choice from the drop down gallery.It will open Header/Footer area in the document.

2. Type text in the header or footer area.

3. To return to the body of our document, click **Close Header and Footer** on the **Design** tab (under **Header & Footer Tools**).

Fig: 4.36 Header & Footer Tools

Remove headers and footers

1. Click on the Header, Footer or Page Number Command in **Header and Footer** group on Insert Tab.

2. A drop down gallery of Headers/Footers will appear.

3. Click Remove at the bottom of the menu.

Fig: 4.37 Remove Headers   Fig: 4.38 Remove Footers

4.2.3.2 Page Number : Microsoft Word automatically assigns page numbers on the pages of our document. Typically, page numbers are printed either in header, footer or inside margins. We can also assign a different page numbering using the Restart Page Numbering option in MS Word.

Steps to Add Page Numbers:

1. On the **Insert** tab, click **Page Number** in the **Header & Footer** group.

2. Click the **page number location** that we want. (Top of page or Bottom of page etc.)

3. In the page number gallery, scroll through the options, and then click the page number format that we want.

Steps to Remove Page Numbers:

If we want to remove the page numbering, perform the following steps:

1. On the Insert tab, click Page Number in the Header & Footer group.

2. Click the "Remove Page Numbers" option.

Fig: 4.39 Page Number

4.2.4 Text Group

This group provides options to add Textbox, WordArt, AutoText, Drop Caps etc. features in our document.

4.2.4.1 Text Boxes : A text box is an object that allows us to put and type text anywhere in our file.

Working with Text Boxes:

1. On the **Insert** tab, click **Text Box** in the **Text** group. It will display a drop down menu.

2. Click on a built-in Textbox Template or click **Draw Text Box** at the bottom of the drop down menu to draw our own text box.

Fig: 4.40 Text Box

3. When we select to **draw text box**, we need to click and drag the mouse to draw the textbox in the document.

4. To **add text to a text box**, click inside the textbox and then type text.

5. To **format text in the text box,** select the text, and then use the formatting options in the **Font** group of the **Home** tab.

6. To position the text box, select it and drag the text box to a new location.

Deleting Text Boxes:

- To remove a text box, just click the border of the text box that we want to delete, and then press DELETE from keyboard.

4.2.4.2 WordArt : WordArt can be used to add special text effects to our document. For example, we can stretch a title, skew text, make text fit a pre-set shape, or apply a gradient fill. WordArt becomes an object that we can move or position in our document to add decoration or emphasis. We can modify or add text in an existing WordArt object whenever we want.

Steps to add WordArt:

1. On the **Insert** tab, click **WordArt** in the **Text** group.

2. From the Drop down word art gallery, click the WordArt style which we want to insert in our document.

Fig: 4.41 Word Art

3. A Text Box will appear with the words "Enter your text here", Type our text.
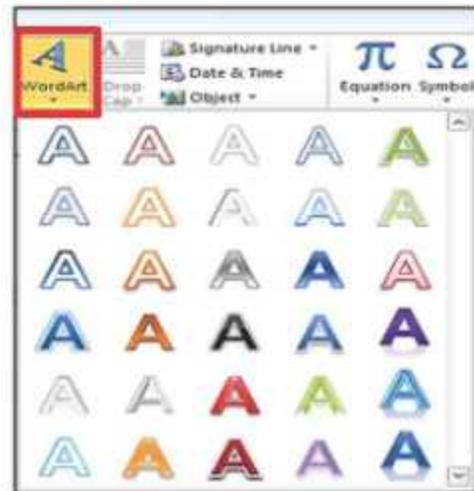
4.2.5 Symbols Group

This group of insert tab allows us to insert common mathematical equations and those special symbols that are not available at our keyboard such as copyright symbols, trademark symbols, Unicode characters etc.

4.2.5.1 Symbol : When creating documents, we may need to use a symbol or special character that does not appear on the keyboard. These symbols and special characters can be accessed through the Symbol dialog box.
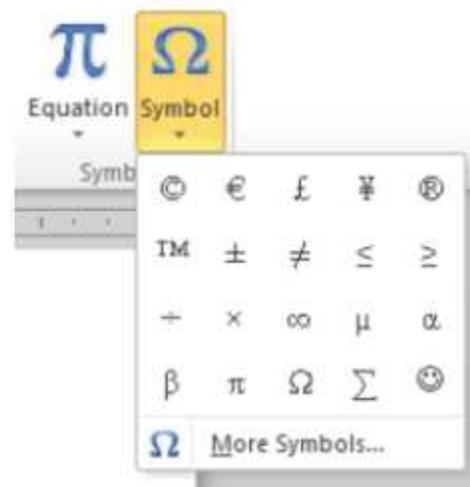
Fig: 4.42 Symbols

Steps to insert Symbols:

1. Click the **Symbol** command button in the **Symbol** group on the **Insert** tab.

2. A list of some popular or recently used symbols appears. Clicking a symbol from the menu inserts the special symbol directly into our text (where we currently have the insertion pointer), just like we insert any other character.

Points To Remember

1. Formatting a document includes modifying text size, font face, color, style, alignment, line spacing, graphics and many more things.

2. A font is a set of printable or displayable text characters in a specific face and size.

3. The Format Painter feature allows us to quickly copy a format that we have applied to text already in our document.

4. Undo command reverse the action we have performed while editing. If we make an error in our document we can correct it by click on the Undo command, it will remove the last thing we did.

5. We can grow (increase) and shrink (decrease) font sizes of text by clicking grow font option and shrink font option.

6. There are three basic font styles that can be applied on the text: Bold, Italic, Underline.

7. When we use text highlight color option, it means that the text shows like it was marked with a highlighter pen.

8. Text effects include Outline, shadow, glow, and reflection.

9. Alignment determines the appearance and orientation of the edges of the paragraph: left-aligned text, right-aligned text, centered text, or justified text, which is aligned evenly along the left and right margins

10. When we are working with longer documents, it is difficult and time consuming to locate a specific word or phrase. Word can automatically search our document for specific word or phrase using the Find feature.

11. Microsoft Word automatically assigns page numbers on the pages of our document.

12. A text box is an object that allows us to put and type text anywhere in our file.

EXERCISE

1. Multiple choice questions.

I. To select a whole word, _____ click on it.

a) Single
b) Double
c) Triple
d) None

II. The _____ Group of Home tab allows us to change our text font style, size, color and many other elements.

    a)   Font   b)   Paragraph

    c)   Styles   d)   Editing

III. _____ means draw a horizontal line underneath the letters

    a)   Bold   b)   Italic

    c)   Underline   d)   None

IV. _____ Option means that the text is shown like it was marked with a highlighter pen.

    a)   Font color   b)   Text Color

    c)   Text Highlight Color   d)   All of Above

V. After inserting a shape, a new tab will appear which is called _____

    a)   Drawing Tools Format   b)   Shape Tools Format

    c)   Drawing Shapes Format   d)   None

2. Write the shortcut keys for the following

I. To Cut the selected text

II. To Paste the copied/cut contents

III. To Increase the font size

IV. To Underline the Text

V. To change the case of Selected Text

VI. For Centre Alignment

VII. For double line spacing

VIII. To Replace the text

IX. To Undo the last operation

X. To Insert Page break

3. Short Answer type Questions:

I. Write about UNDO command?

II. Which are basic three font styles?

III. What are Headers and Footers in MS word?

IV. How many Change Cases options are available in MS Word? Write their names?

V. How many alignments are available in MS Word? Write their names and shortcut keys?

VI. How can we insert page break in MS word?

4. Long Answer type Questions:

I.   Write about Clipboard group options of Home tab in MS Word.

II.   Write about the options available in Font group of Home tab in MS Word.

III. What is WordArt? How will you insert WordArt in a Word document?

Activity

- Write an application shown below:

Application of leave for urgent piece of work

To,

      The School Head,

      Your School Name,

      City

Subject   : *Regarding leave for a day*

Sir/Madam

      It is respectfully stated that I, ABC is a student of 7th class in your school. I have an urgent piece of work on 15th Sept 2021. I will not be able to come to school for one day. Please grant me leave for 15th Sept 2021. I shall be very thankful to you for this.

                                 Yours obediently

Date: _____

                                 ABC

                                 Class 7th

                                 Roll No: XX

MICROSOFT WORD (PART - III)

CHAPTER - 5

INTRODUCTION

In this lesson, we will learn how to change the picture style and shape, add a border, crop and compress pictures, and add artistic effects. Once we have inserted a picture into our document, we must select that picture first to trim it or make it appear smaller on the page.

5.1 PICTURE TOOLS (FORMAT TAB)

Once we have added pictures to our documents, we can format them in various ways. The **picture tools** in Word 2010 make it easy to include images into our documents and modify these images in interesting ways.

After selecting the picture "Picture Tools - Format" tab appears. When we click "Picture Tools - Format" tab, following ribbon will appear:

Fig: 5.1: Picture to be formatted

Fig: 5.2 Picture Tools (Format Tab)

5.1.1 Adjust Group

The first group in this ribbon is "Adjust". This group contains the following options :-

5.1.1.1 Corrections : The Brightness and Contrast presets are available in this option. To sharpen or soften the image we can use this option.

Steps to use correction option:

1. Select the image, the Format tab will appear. Click the Format tab.

2. Click the Corrections command. A drop-down menu will appear as shown in the figure below:
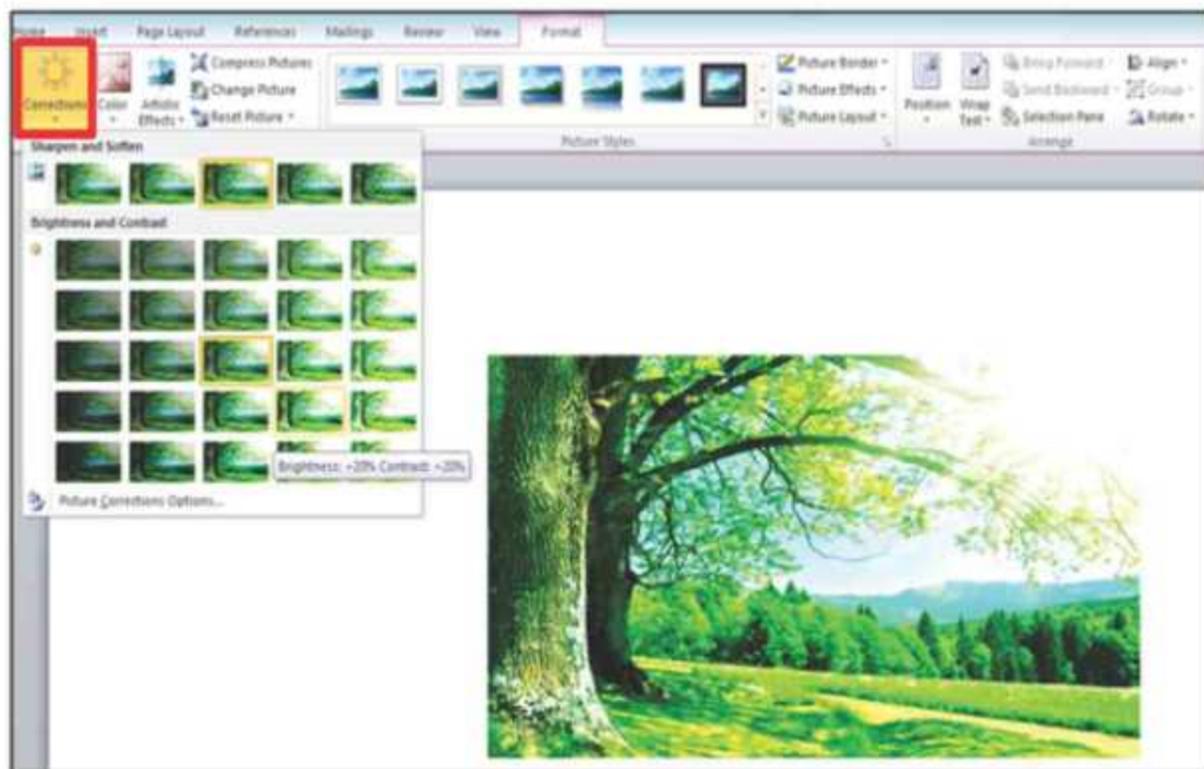

Fig: 5.3 Corrections

3. To sharpen or soften the image, roll over the Sharpen and Soften presets. You'll see a live preview of the preset in the document.

4. When we have found a preset we like, click it to select it.

5.1.1.2 Color : We can also define the color of the picture.

Steps to use color option:

1. Select the image, the Format tab will appear. Click the Format tab.

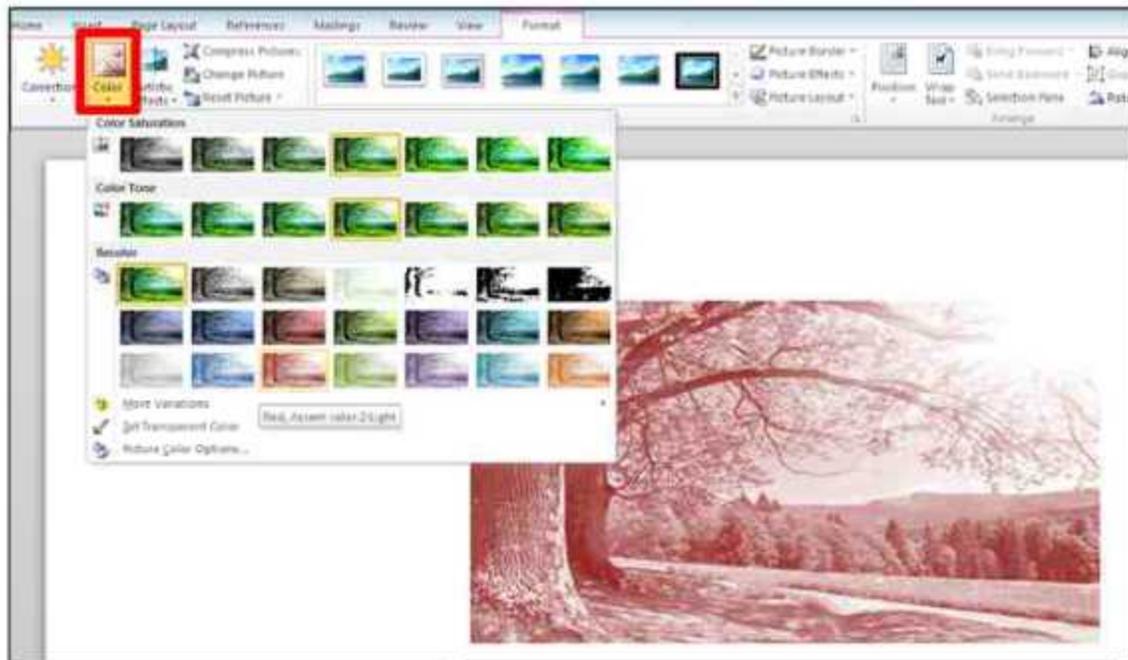2. Click the Color command. A drop-down menu will appear as shown in figure below:

Fig: 5.4 Color

3. From the drop-down menu, we can choose a preset from each of the following three categories:

   a. **Color Saturation :** This controls how vivid (Bright) the colors are in the image.

   b. **Color Tone :** This controls the temperature of the color, from cool to warm.

   c. **Recolor :** This controls the overall color of the image. Use this option to make the image black and white or gray-scale, or to colorize it with a different color.

5.1.1.3 Artistic Effect : Many clip art images do not allow us to apply artistic effects. Generally speaking, the images that look hand-drawn or painted do not allow artistic effect, while photographs allow us to do so:

Steps to use Artistic effect:

1. Select the picture. The Format tab will appear. Select the Format tab

2. Click the More drop-down arrow to display all of the picture styles

3. Move the mouse over a picture style to display a live preview of the style in the document.
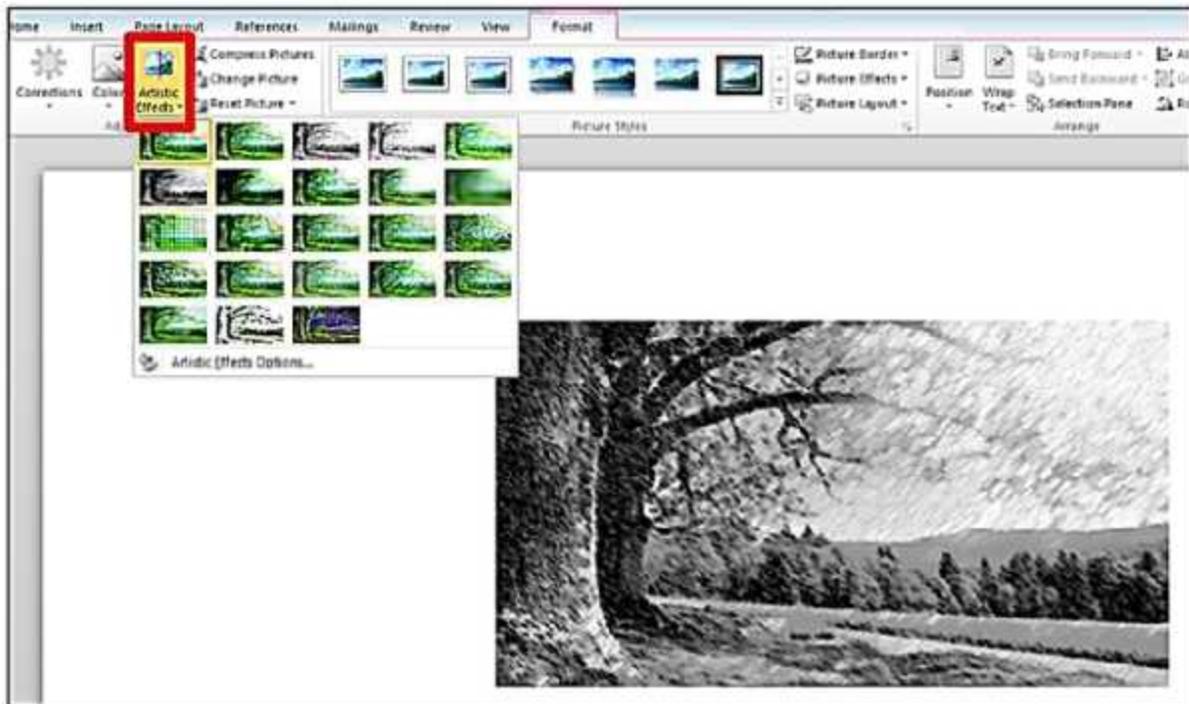
4. Select the desired style.

Fig: 5.5 Artistic Effects

5.1.1.4 Compress picture : We might need to look the file size of our documents that include pictures, especially if we want to send them via email. Large high-resolution pictures make our document too large, which may make it difficult or impossible to attach to an email. In addition, cropped areas of pictures are saved with the document by default, which may be added to the file size. Word can reduce the file size by compressing pictures, lowering their resolution, and deleting cropped areas.

Steps to compress a picture:

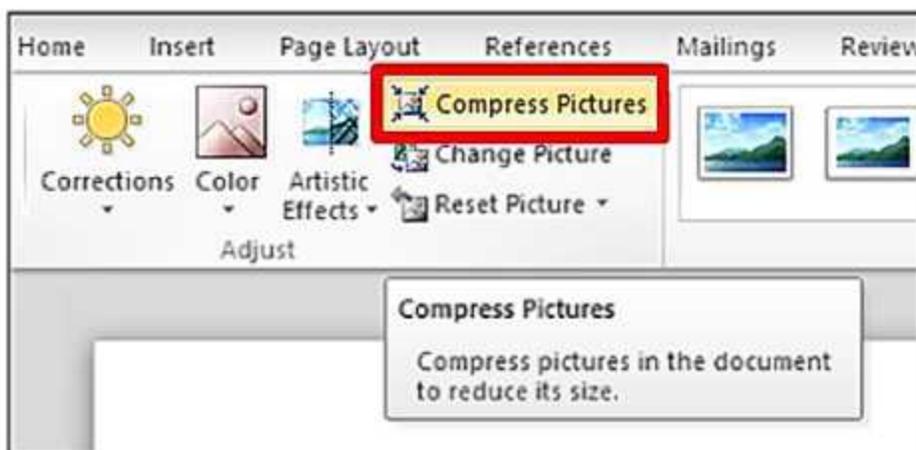1. Select the picture. The Format tab will appear. Select the Format tab.

Fig: 5.6 Compress picture

2. Click the Compress Pictures command in the Adjust group. A dialog box appears.
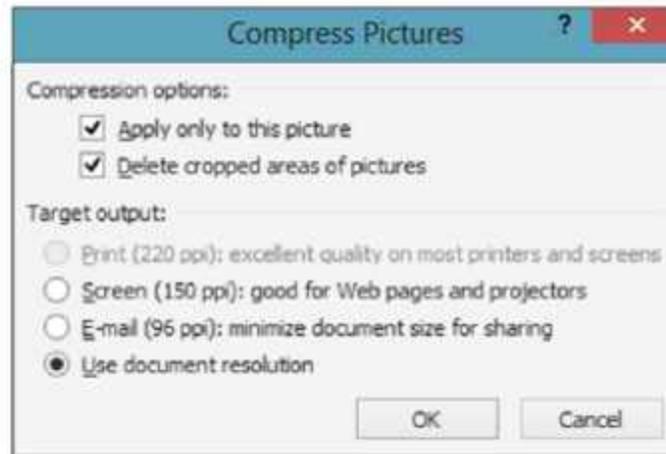

Fig: 5.7 Compress Picture dialog box

3. Place a check mark next to Delete cropped areas of pictures. We can also choose whether to apply the settings to this picture only or to all pictures in the document.

4. Choose a Target output. If we are emailing our document, we may want to select Email, which produces the smallest file size.

5. Click OK.

5.1.1.5 Change picture : While working in Word 2010, we may need to change/replace any picture.

Fig: 5.8 Change Picture

To replace the picture, select the image and the click the Change Picture option in the Adjust group of Picture Tools - Format tab. Now, select the picture that we want to replace with the current picture. This option will change the picture preserving the formatting and size of the current picture.

5.1.1.6 Reset Picture : This option of Adjust group discards all the formatting and changes made by us to the selected picture.

5.1.1.7 Remove Background : Removing the background from an image can give our images a clearer appearance. If we are printing our document, it can also save ink. To remove background,

Word uses special methods to determine which parts of the image are the background and then removes these areas from the image. Background Removal does not work with some clip art images.

Steps to remove the background from an image:

1. Click the image. The Format tab will appear. Click the Format tab.

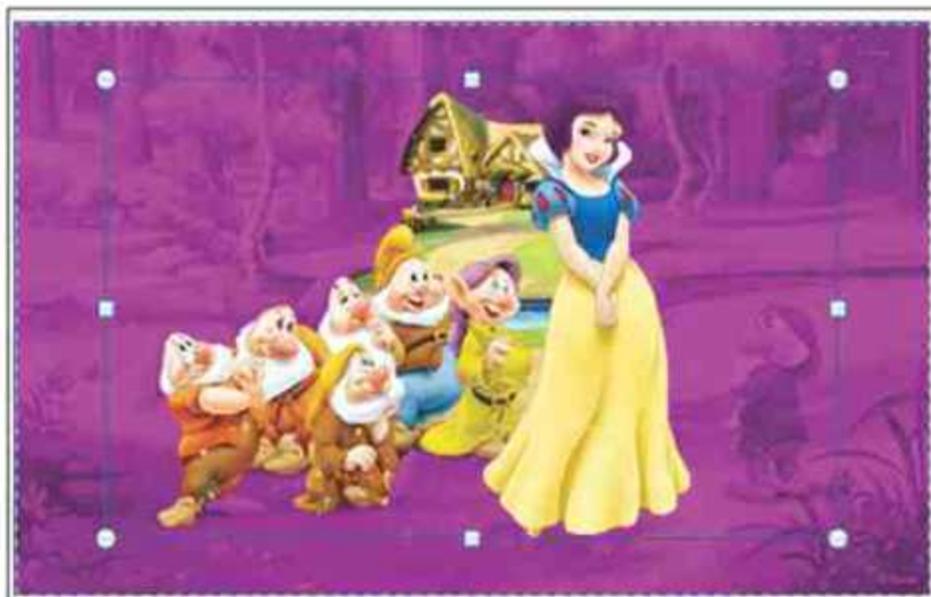2. Click the Remove Background command in Adjust group.

Fig: 5.10 Background area with a magenta fill

3. Word will try to guess which part of the image is the background, and it will mark the area with a magenta-fill. It will also place a box around the image with selection handles.

4. Drag the selection handles until the entire foreground is inside the box. After this, Word may readjust the background.

5. At this point, we may need to help Word to decide which parts of the image are foreground and which parts is background. We can do this by using the **Mark Areas to Keep** and **Mark Areas to Remove** commands.

•   If Word has marked part of the foreground magenta, click **Mark Areas to Keep** and draw a line in that region of the image.

•   If part of the background has not been marked with magenta, click **Mark Areas to Remove** and draw a line in that region of the image.

Fig: 5.11 Mark Areas to Keep and Mark Areas to Remove

6. After we add our marks, Word will readjust the image.

7. When you're satisfied with the image, click **Keep Changes.** All of the magenta areas will be removed from the image.

Fig: 5.12 Image after removing the background

8. We can adjust the image at any time by clicking the Remove Background option again.

5.1.2 Picture Style Group

This is the next group of Picture tools **Format** tab ribbon.

5.1.2.1 Picture Style Gallery : Here we can choose an overall visual style for the picture. This gallery of styles allows us to set the predefined styling-effects on the selected picture.

Steps to apply a picture style:

1. Select the picture. The Format tab will appear. Select the Format tab.
2. Click the More drop-down arrow to display all of the picture styles.

Fig: 5.13 Picture Style

3. Roll-over a picture style to display a live preview of the style in the document.

4. Select the desired style.

5.1.2.2 Picture Border : This option specifies the color, width and the line-style for the outline of the selected picture.

Fig: 5.14 Picture Border

5.1.2.3 Picture Effects : This option applies a visual effect such as a shadow, glow, reflection or 3D rotation. We can apply any of these effects to the picture as per our requirement.
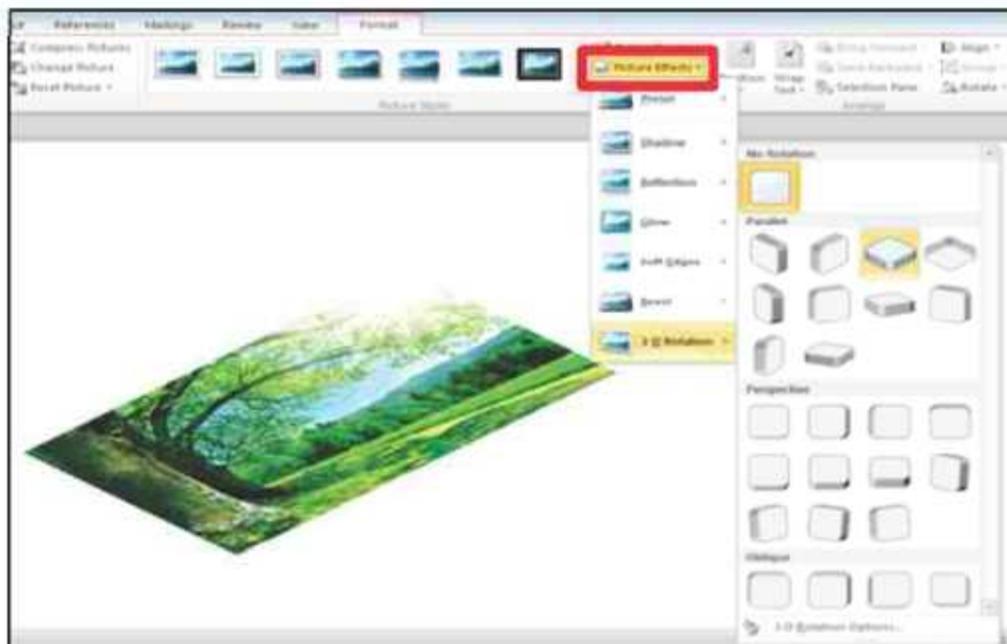

Fig: 5.15 Picture Effects

5.1.3 Arrange Group

This group has many options which help us in arranging the picture with the text and other pictures in the documents.

5.1.3.1 Position : It positions the selected object on the page. The text is automatically set to wrap around the object.

5.1.3.2 Wrap Text : It changes the way text wraps around the selected object.

Steps to apply a Wrap Text:

1. Select the image and click the Picture Tools – Format tab.

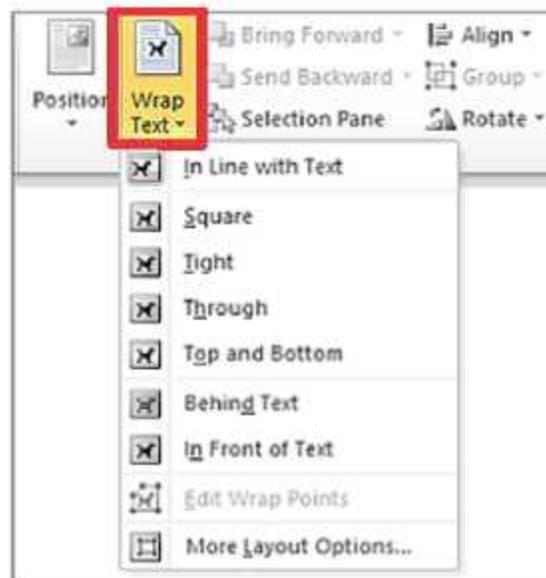2. In the **Arrange** group, click **Wrap Text**.

Fig: 5.16 Wrap Text

3. Do one of the following:

   - Click **Square** to wrap text around the border of your image.

   - Click **Tight** to wrap text closely around a clip art image or an irregularly shaped picture.

   - Click **Through** and then click Edit Wrap Points to drag the wrap points closer to the image, so that text can fill in more space around the image.

   - Click **Top and Bottom** to place the image on its own line.

   - Click **Behind** Text to display the text over the image.

   - Click In **Front** of Text to display the image over the text.

4. Click **More Layout Options** and then click the Text Wrapping tab to change where the text wraps or the distance between the text and the image.

5.1.3.3 Align : This option is used to align the picture according to the margins.

5.1.3.4 Group : This option is used to group two or more images together so that they can be treated as a single object.

5.1.3.5 Rotate : This option is used to flip or rotate the image/picture.

5.1.4 Size Group

This is the next group on the **Picture tools format tab** ribbon. When we click on the launcher of the **size** group. It shows a dialog box to change the size of a shape or picture. it has the following main options or commands:

5.1.4.1Crop : It is used to crop the picture (to remove any unwanted parts).

5.1.4.2 Height and Width : These options are used to change the height and width of the shape and image in inches.

5.2 PAGE LAYOUT TAB

Page layout tab offers a variety of **page layout and formatting** options that affect the appearance of content on the page.

5.2.1 Page Setup Group

We can select the **page orientation, paper size**, and **page margins** depending on how we want our document to appear.

5.2.1.1Margins : Page margins are the blank space around the edges of the page. Generally, we insert text and graphics in the printable area between the margins. We can specify the some items in the margins — for example, headers, footers, and page numbers. In Margin option, various predefined margin size are available.

Fig: 5.17 Margins

Steps to Format Page Margins:

1. Select the **Page Layout** tab.

2. Click the **Margins** command. A menu of options will appear. **Normal** is selected by default.

3. Click the **predefined margin** size we want.

Steps to use Custom Margins:

1. From the **Page Layout** tab, click **Margins** and select **Custom Margins.** This will show the **Page Setup** dialog box.
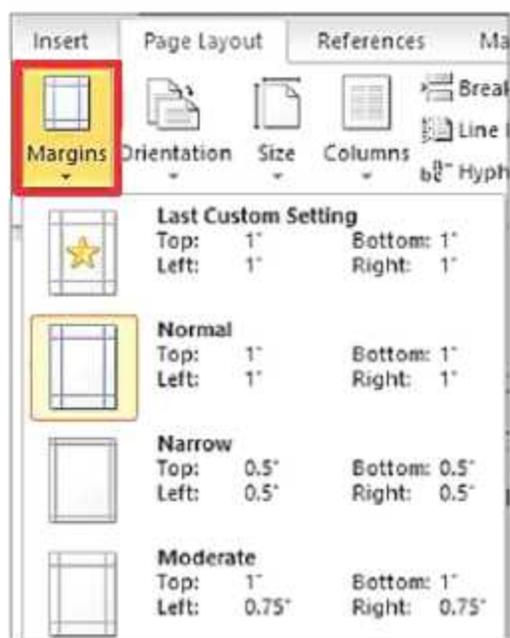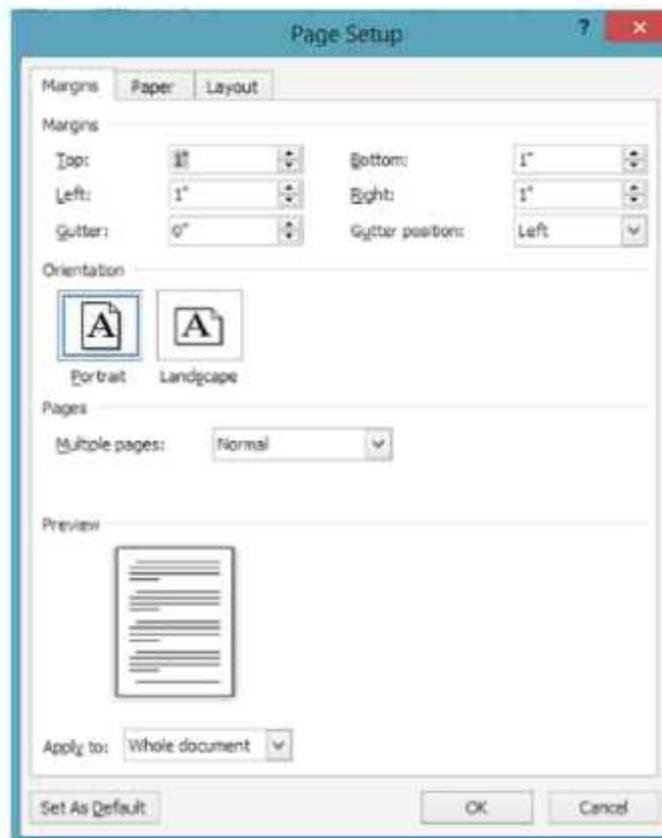
Fig: 5.18 Custom margins

2. Adjust the **margin sizes** for each side of the page, and then click OK.

5.2.1.2 Orientation : Orientation decides the Landscape or portrait format. **Landscape** format means the page is oriented **horizontally,** while **portrait** format means it is oriented **vertically.**

Steps to change Page Orientation:

1. Select the Page Layout tab.

2. Click the Orientation command in the Page Setup group.
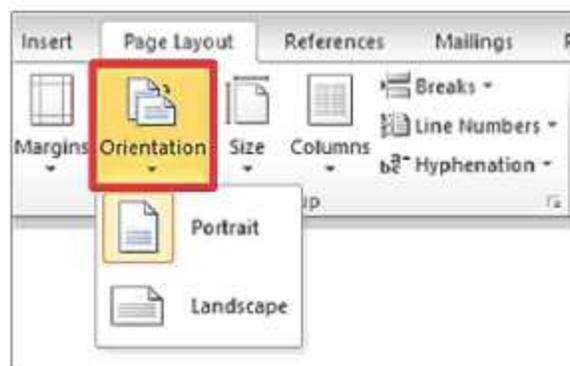
Fig: 5.19 To change page orientation

3. Click either Portrait or Landscape to change the page orientation.

5.2.1.3 Size : This option provides various paper sizes for the current section.

Steps to change Page Size:

1. Select the Page Layout tab.

2. Click the Size command, and a drop-down menu will appear. The current page size is highlighted.
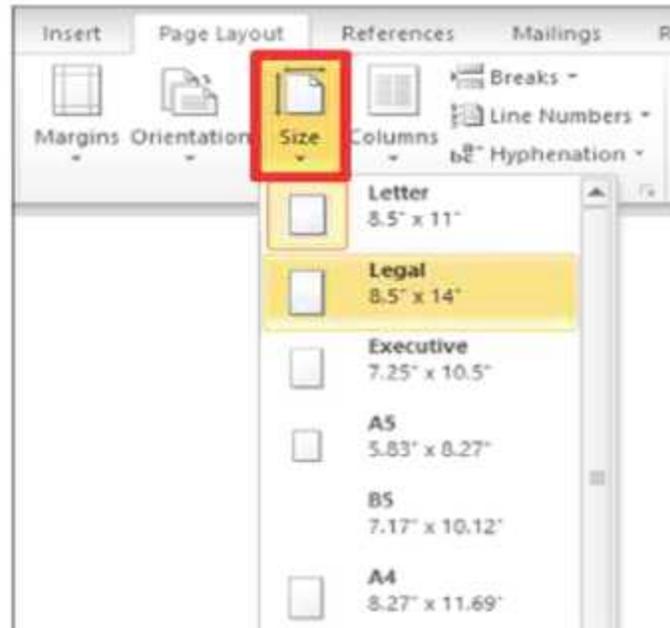

Fig: 5.20 To change page size

3. Click the size option you want. The page size of the document will change.

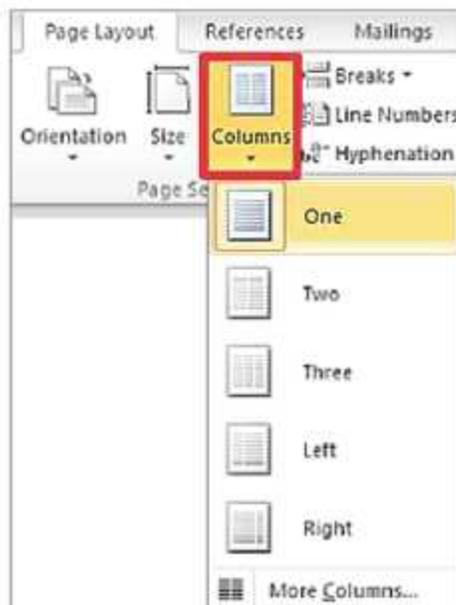**5.2.1.4 Columns :** This option splits the text into two or more columns.

Fig: 5.21 Columns

5.2.2 Page Background Group

We can add a background when we want some graphical elements, such as a watermark, to appear on more than one page.

5.2.2.1 Water Mark : Watermarks are text or pictures that appear behind document text. They often identify the document status, such as marking a document as a **Draft or Confidential.** So we can add text watermarks, such as Draft or Confidential, to our document. Word provides galleries of ready-made watermarks, or we can create our own custom watermark, such as any logo. We can also add a background color or picture to our document. We can insert a predesigned watermark from a gallery of watermark text, or can insert a watermark with custom text.

Steps to add a Text Watermark to Document:

1. Click on the **Water mark** option of Page Background group in Page Layout tab.

2. Do one of the following:

    •   Click a predesigned watermark, such as **Confidential** or **Do not copy,** in the gallery of watermarks.

    •   Click **Custom Watermark,** click **Text watermark** and then select or type the text that we want. We can also format the text.
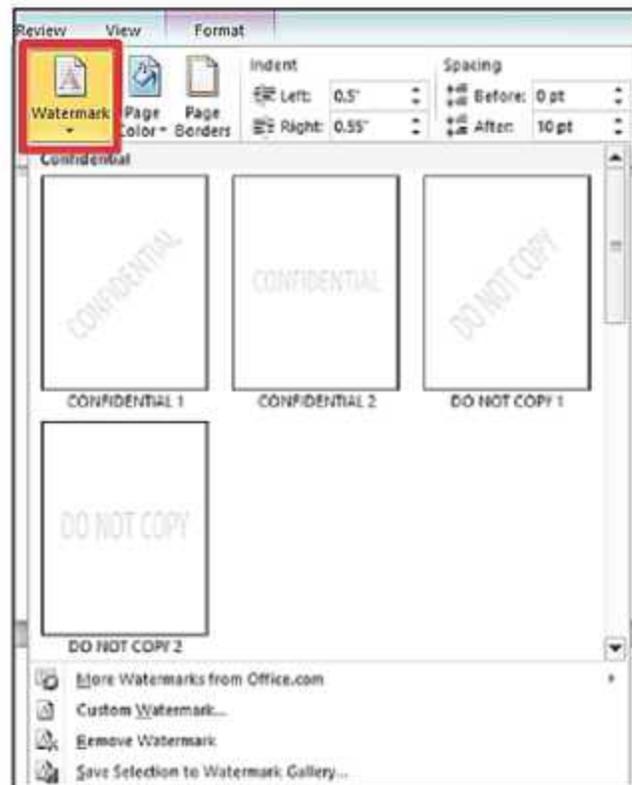
Fig: 5.22 Watermark

Watermarks can be viewed only in Print Layout and Full Screen Reading views and on the printed page.

5.2.2.2 Page Color : We can apply different colors, texture or picture to our document.

Steps to add a Background Color or Texture:

1. Click on Page **Color** option in the **Page Background** group of **Page Layout tab.**
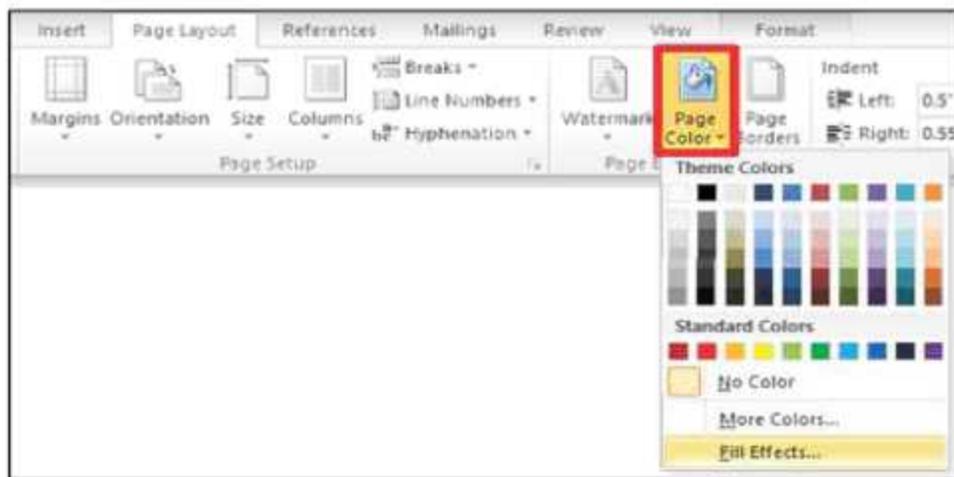
Fig: 5.23 Page Color

2. Do any of the following:

    •   Click the color that we want under **Theme Colors** or **Standard Colors.**

    •   Click Fill Effects to change or add special effects, such as gradients, textures, or patterns.

Note : Select the color that we want before we apply a gradient or pattern.

5.2.2.3 Page Borders : Page Borders are used to put borders around the page. When we click the option **Page Borders** in **Page Background** group of **Page Layout** tab, a dialog box appears as shown in the figure below:
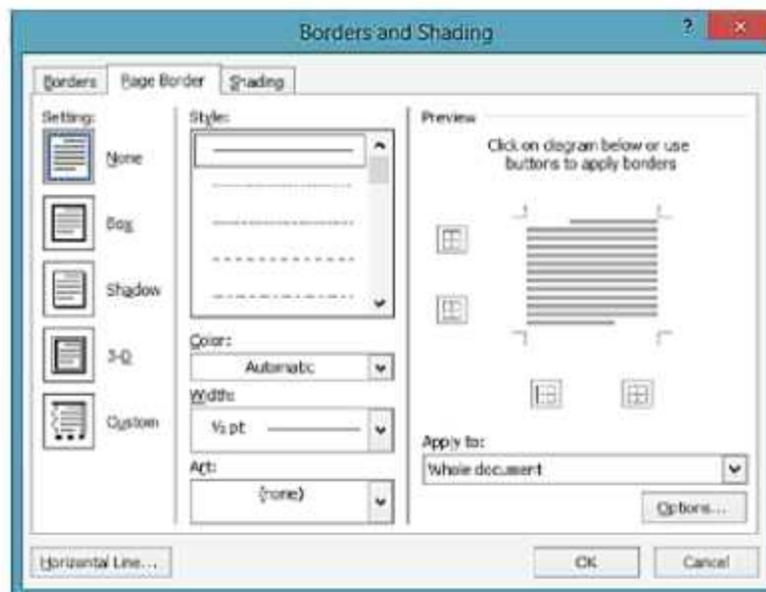
Fig: 5.24 Page Borders

Steps for setting Page Border:

1. In Border a shading dialog box, under **Setting**, we can choose the border style we want.

2. Under **Style**, we can click on the line style we want.

3. Under the **Color,** Click the arrow and choose a border color.

4. Under the **Width,** Click the arrow and choose the width for the border.

5. If we want a clip-art border instead of the borders provided under **Style,** click the arrow under **Art** and choose a border graphic.

6. Next, click the arrow under **Apply** to and choose the suitable option as per our requirement.

7. Click OK.

Note : The **Preview box** confirms our border styles. To remove the border from one side, we can click that line in the Preview box.

5.3 REVIEW TAB

In the Review tab, we find the Spelling & Grammar, Word Count, Translate, and Language features. There are other features also, but these are the most commonly used ones.

5.3.1 Proofing Group

Word provides us with several **proofing features** that help us to produce professional, error-free documents.

5.3.1.1 Spelling and Grammar : To make our document error free, we have to make sure that it is free from **spelling and grammar** errors. Word has several options for checking spellings. We can run a spelling and grammar check, or we can allow Word to check our spelling automatically as we type. Spelling mistake is shown with red wavy line under the wrong word while grammatical mistakes are shown using the green color wavy line in MS Word.

Steps to run a Spelling and Grammar Check:

1. Go to the **Review tab.**

2. Click on the **Spelling & Grammar** command.

3. The **Spelling and Grammar** dialog box will open. For each error in our document, Word will try to offer one or more suggestions. We can select a suggestion and click Change to correct the error.

4. If no suggestions are given, we can manually type the correct spelling.

Fig: 5.25 Spelling and Grammar

5.3.1.2 Word Count : Word Count is the feature which is used to find out number of words, characters, paragraphs and lines in the document. We can also find the number of words in the status bar at the bottom of the window.

5.4 PRINTING DOCUMENTS

Once we have completed our document, we may want to **print** it. The **Print Preview** is an option that allows us to see exactly how the document looks like before printing it. This option is combined with the **Print** window to create the **Print pane**.

Steps to Print Document:

1. Go to the **Print** pane by clicking on the Print option in File Menu. The Print window opens as shown in figure below:

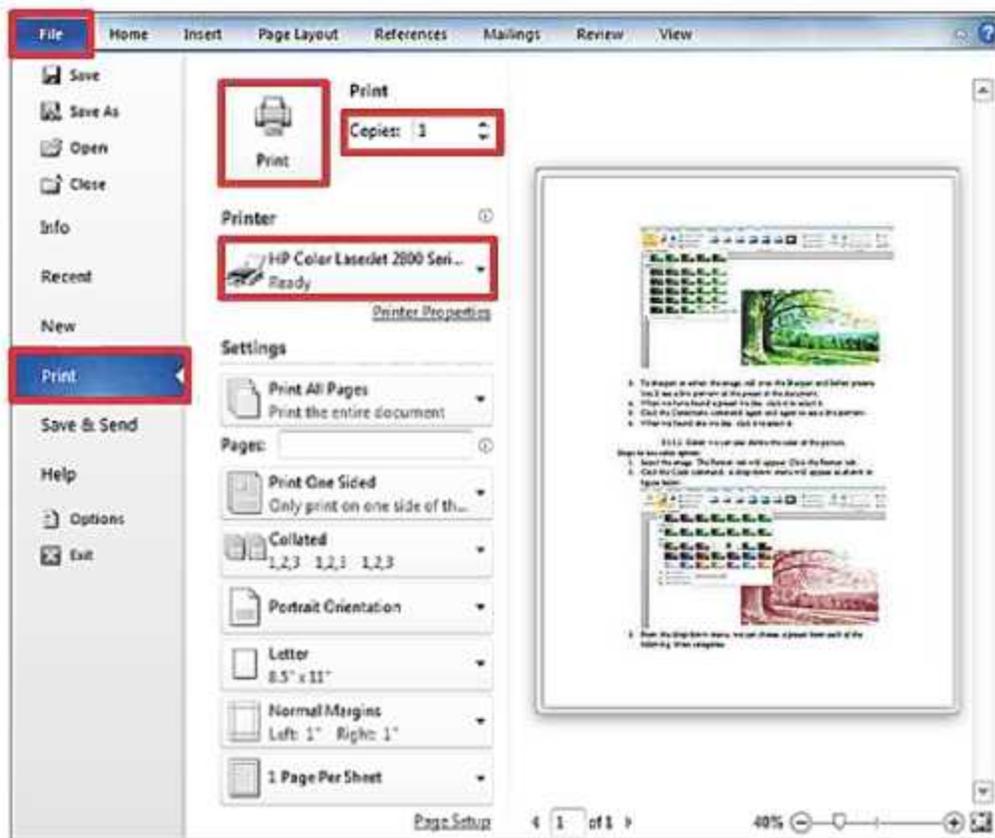<p align="center">Fig: 5.26 Printing Documents</p>

2. If we want to print certain pages, we can type a **range** of pages. Otherwise, select **Print All Pages** to print all pages of the document.

3. Select the **number of copies.**

4. Check the **Collated** box if we are printing multiple copies of a multi-page document.

5. Select a **Printer** from the drop-down list.

6. Click the **Print** button.

Points To Remember

1. When we click the picture "Picture Tools Format" tab's ribbon appears

2. There are three categories in color option: Color Saturation, Color Tone, Recolor

3. Word can reduce the file size by compressing pictures, lowering their resolution, and deleting cropped areas

4. Reset Picture option of Adjust group discards all the formatting and changes made by us to the selected picture

5. Picture Border option specify the color, width and the line style for the outline of the selected picture

6. Picture Effects option applies a visual effect such as a shadow, glow, reflection or 3D rotation

7. Wrap Text changes the way text wraps around the selected object

8. Crop is used to crop the picture (to remove any unwanted parts).

9. There are two types of orientation of page: Landscape and portrait format.
   - Landscape format means the page is oriented horizontally.
   - Portrait format means the page is oriented vertically.

10. Spelling mistake is shown with red wavy line under the wrong word while grammatical mistakes are shown using the green color wavy line in MS Word.

11. We can use "Word Count" Option of MS Word to count the number of words in the document.

EXERCISE

1. **Multiple choice questions:**

   I. After selecting a picture _____ tab appears.
      a) Format
      b) Page Layout
      c) Insert
      d) View

   II. For text wrapping, we can use _____ option.
      a) Square
      b) Tight
      c) Behind Text
      d) All of these

   III. To remove any unwanted parts of picture, _____ option is used.
      a) Crop
      b) Rotate
      c) Group
      d) Compress

IV. Which of the following option is not available in the Adjust group of Format tab?

 a) Corrections b) Artistic Effects

 c) Remove Background d) Picture Styles

V. We can find the number of words in the _____ bar at the bottom of the window

 a) Task Bar b) Status Bar

 c) Title Bar d) Scroll Bar

2. Very Short Answer type Questions:

I. Which option splits the text into two or more columns?

II. Which page orientation sets the page in horizontal direction?

III. Which option is used to group two or more images together so that they can be treated as a single object?

IV. Which option can be used to change the color of a picture in MS Word?

V. Which option is used to count words in MS Word?

3. Fill in the blanks:

I. There are.....................types of orientation of the page.

II. ....mistake is shown with red wavy line under the wrong word.

III. ....are the blank spaces around the edges of page.

IV. ....are the text or pictures that appear behind document text.

4. Short Answer type Questions:

I. What are Margins?

II. What do you mean by Compress picture?

III. Write about Reset picture?

IV. What is Crop option?

V. Give the name of two page orientation in MS Word?

VI. Write the name of various options available in the adjust group of Picture tools format tab.

5. Long Answer type Questions:

I. What is Water-Mark? Write the Steps to add a watermark in a word document?

II. Write the steps to run a Spelling and Grammar check?

III. Explain the steps to Print a Document.

Create the following document in MS Word:

- Create three pictures in MS Paint as shown in the following figure and Insert them in the word document:

- Perform Crop, Copy & Paste, Wrap Text, Picture Effects (Glow), Corrections and Color effects etc. operations on the above pictures to make it as shown below:

MICROSOFT WORD (PART - IV)

CHAPTER - 6

INTRODUCTION

MS Word offers a flexible feature of presenting information in tabular form. It is very useful in organizing and representing the data in an effective way. A table consists of a number of columns and rows. In this chapter, we will learn to insert and format table in our document.

6.1 WHAT IS A TABLE?

Table provides a convenient way of writing data in rows and columns. Tables are often used to organize and present information.
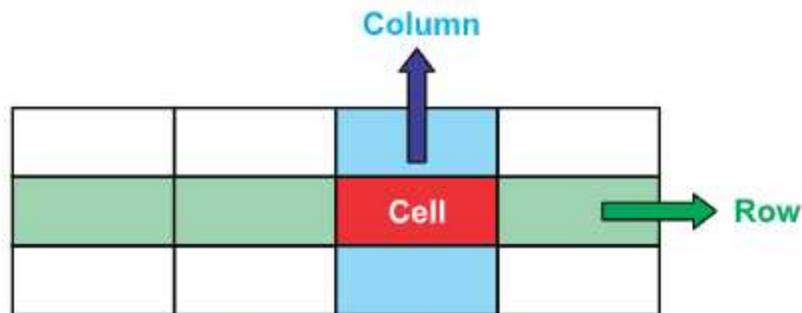
Fig 6.1 Construction of a Table

Horizontal lines of the table are called **Rows** while vertical lines are called **Columns.** The intersection of rows and column in a table is called a **Cell.**

6.2 CREATING A TABLE

Word provides a variety of ways to create a table. Following discussion explain some of the common methods to create tables in MS Word:

Fig 6.2 Creating a Table

6.2.1 Using "Table" Button

It is the simplest way to create a table in MS Word. Following steps can be used for using this method:

1.   Click where we want to insert a Table.

2.   Click on the **Table button** in the **Tables group** on the **Insert tab.**

3.   Move the mouse pointer over the grid and cover the number of rows and columns you want in the table.

4.   The table will be inserted in the working area (As shown in Fig. 6.4).
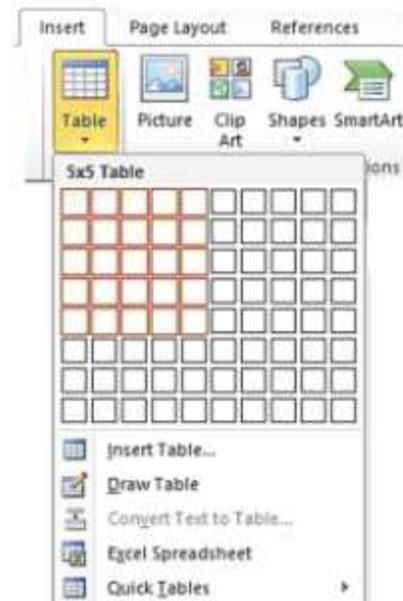
Fig 6.3 Using Table
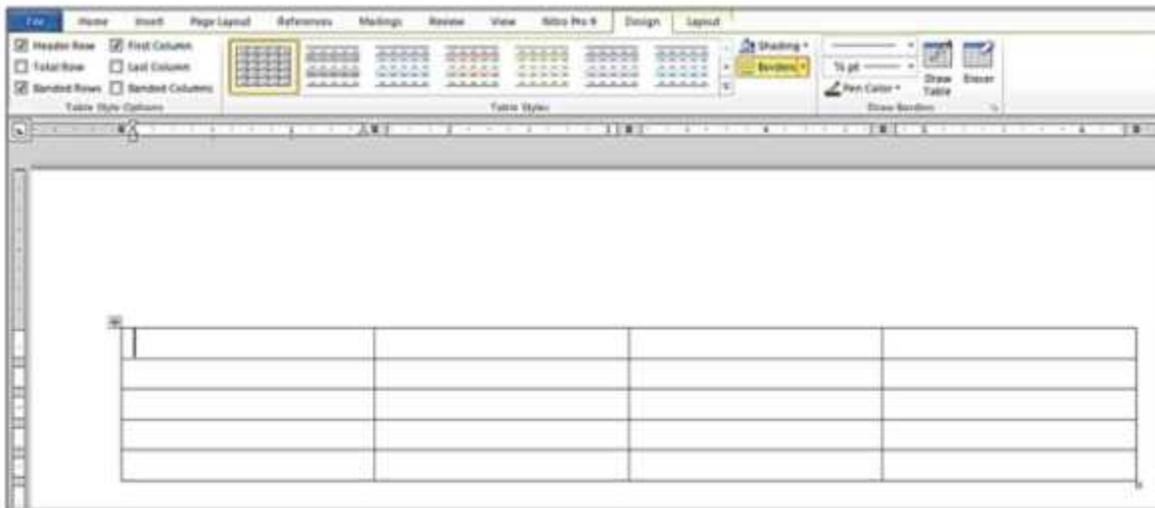
Fig 6.4: Inserted Table in Working Area

6.2.2 Using "Insert Table" Option : It is another easy way to insert a table in the word document:

1. Click on the **Table button** in the **Tables group** on the **Insert tab.**
2. Click on Insert Table option.
3. The Insert Table dialog box appears (As shown in Fig 6.5 & 6.6).
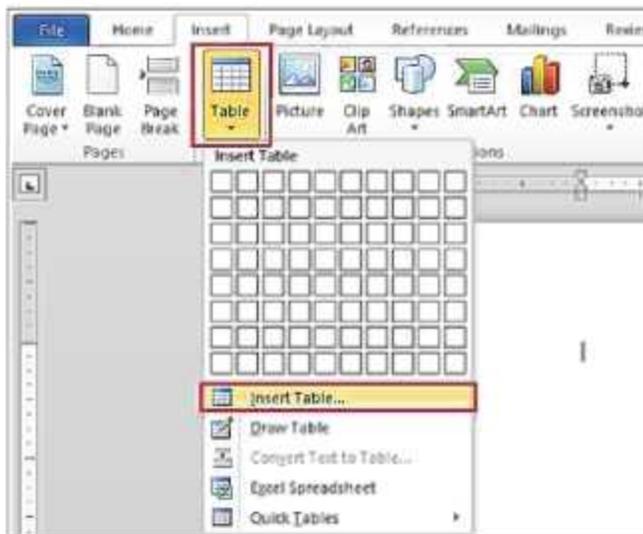
Fig 6.5 Using Insert Table Option

Fig 6.6 Insert Table Dialog Box

4. Specify the number of columns and rows in the dialog box and click on OK.
5. When you insert a table, two new tabs (Design and Layout) also appear on the Ribbon, displaying various Table Tools (As shown in Fig 6.7).

Fig 6.7 Showing Design and Layout Tab

6.2.3 Using "Draw Table" option

Using this option, we can draw a complex table, for example: a table that contains cells of different heights or a varying number of columns per row.

1. Click where we want to create the Table.

2. On the Insert Tab, in the Tables group, click Table, and then click Draw Table.
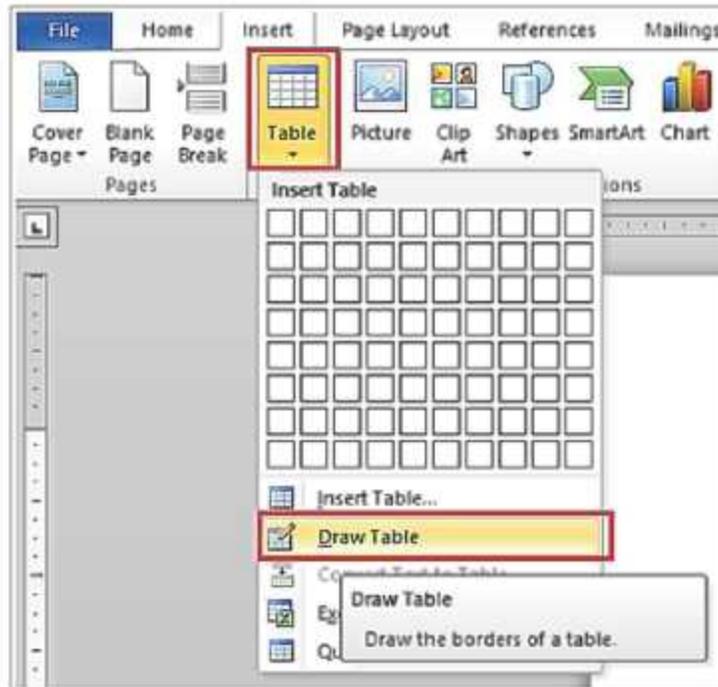
Fig 6.8 Draw Table Option

The pointer changes to a pencil.

3. To define the outer table boundaries, draw a rectangle. Then draw the column lines and row lines inside the rectangle.
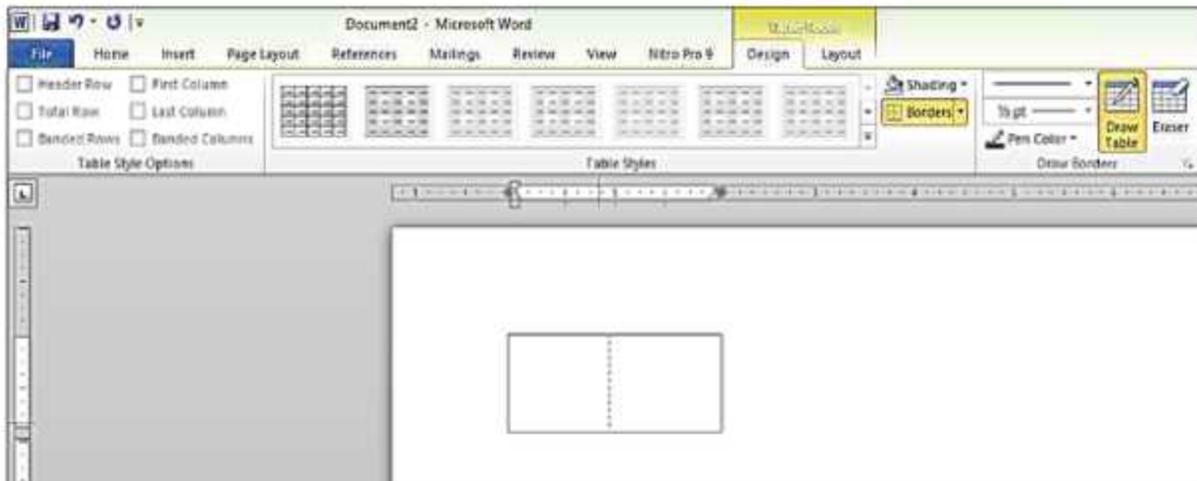
Fig 6.9 Drawing with the help of pencil

6.3 ENTERING DATA IN THE TABLE

To enter data in the table cells, put the insertion point in a table cell and type whatever we want to enter. To move the cursor to the next adjoining cell of table, either press the Tab key or press the **Right arrow** key. To go back to the previous cell, either press **Shift+Tab** keys or the **Left arrow** key. Try to enter the data as shown in the following Table.
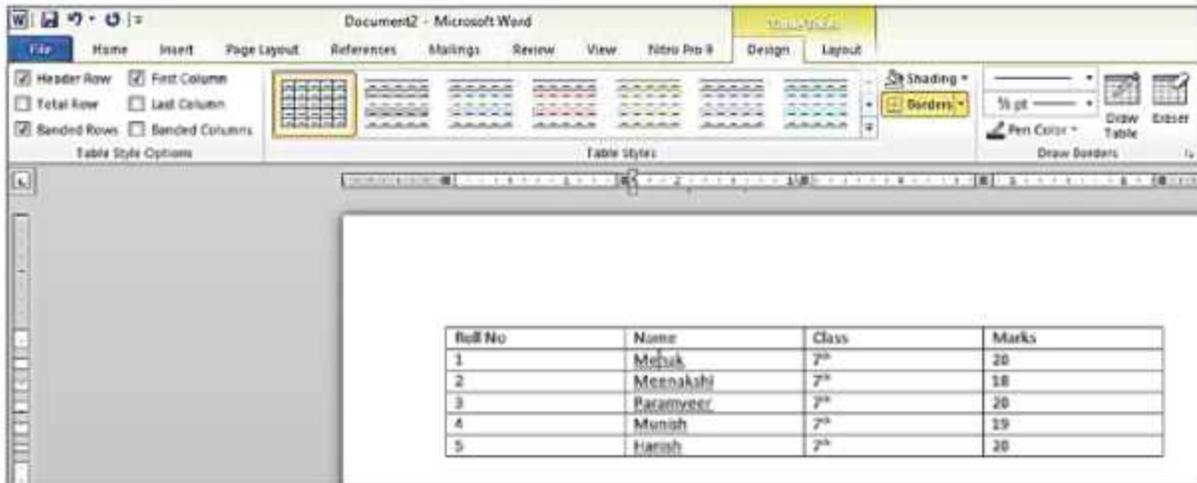
Fig 6.10 Entering Data

6.4 MODIFYING A TABLE

After entering data in a table we can make changes in the data as needed. We can insert rows, columns or cells in a table to accommodate new text. Similarly, we can delete unwanted columns or cells from a table.

6.4.1 Inserting Columns in a Table

Word provides the facility to add columns to the right or left of the existing column. We can insert columns in many ways. Following are some of the common methods:

1st Method of Inserting Columns:

- Bring the cursor in the column adjacent to which we want to insert a new column.
- Under **Rows and Columns** Group of the **Layout** Tab, do one of the following;
  - To add a column to the left of the cell, click **Insert Left** in the **Rows & Columns Group.**
  - To add a column to the right of the cell, click **Insert Right** in the **Rows & Columns Group.**
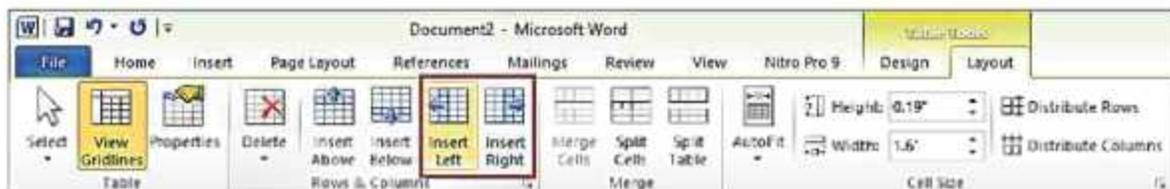
Fig 6.11 Inserting Column (Left or Right)

2nd Method of Inserting Columns:

We can also insert columns by Right-clicking on the cell adjacent to which we want to insert a new column.

- After Right Clicking on the cell, click the **Insert** option.
- To add a column to the left of the cell, click **Insert Columns to the Left.**
- To add a column to the right of the cell, click **Insert Columns to the Right.**
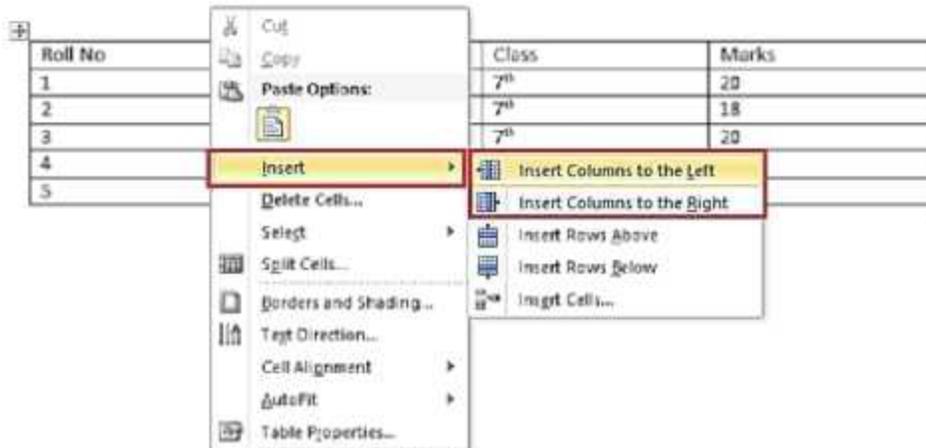
Fig 6.12 Insert columns by Right Clicking

6.4.2 Inserting Rows in a Table

Word provides the facility to Insert Rows above or below the selected row. We can insert rows in many ways. Following are some of the common methods:

1st Method of Inserting Rows:

- Bring the cursor in the row adjacent to which we want to insert a new row.
- Under **Rows and Columns** Group of the Layout Tab, do one of the following;
  - To add a new Row to the above of the current row, click **Insert Above** in the **Rows & Columns Group.**
  - To add a new Row to the below of the current row, click **Insert Below** in the **Rows & Columns Group.**

Fig 6.13 Inserting Row (Above or Below)

2nd Method of Inserting Rows :

We can also Insert Row by Right-clicking on the cell adjacent to which we want to insert a new Row.

- After Right Clicking on the cell, click the **Insert** option.
- To add a new Row to the above of current row, click **Insert Rows Above.**
- To add a new row to the below of current row, click **Insert Rows Below.**
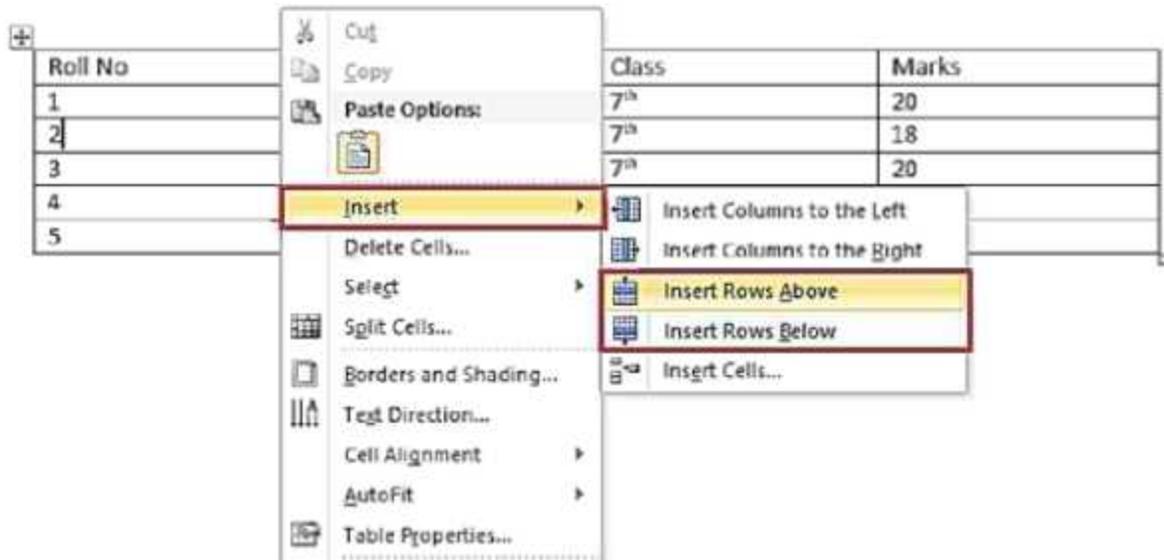
Fig 6.14 Insert Rows by Right Clicking

6.4.3 Inserting a Cell in a Table

By Right Clicking on a particular cell we can insert a cell in a Table.

- To Insert a cell, click on **Insert Cells...** option, in the insert submenu.
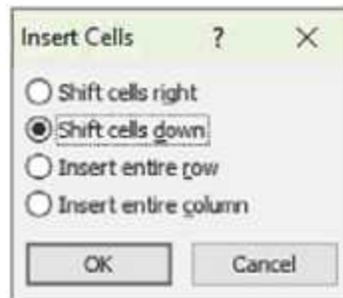
Fig 6.15 Insert Cell

- Select shift cells right or shift cells down option
- Click Ok Button.

6.4.4 Deleting Columns in a Table

Table columns can be deleted by performing the following steps:

- Bring the cursor in the column which we want to delete
- Click on **Delete → Delete Columns** option in the **Rows and Columns group** of the layout tab.
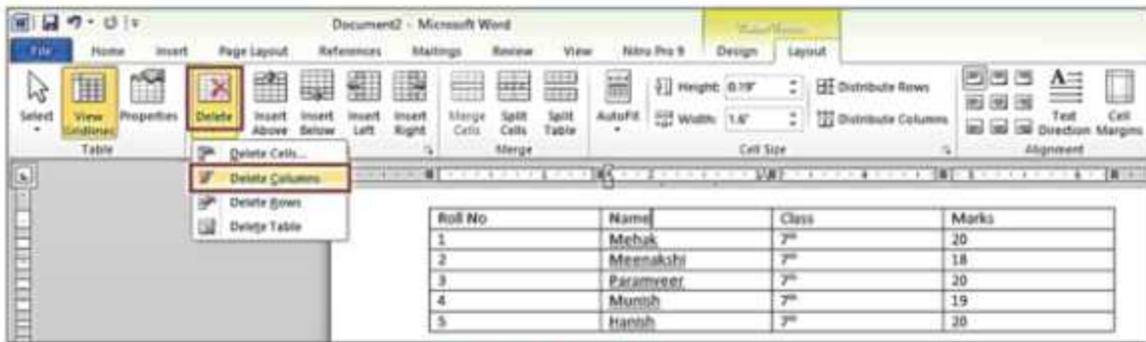
Fig 6.16 Delete Columns

We can also delete columns by **Right – Click** on the column to be deleted

- Select the **Delete Cells...** option

- Select **Delete entire column** option and click OK button
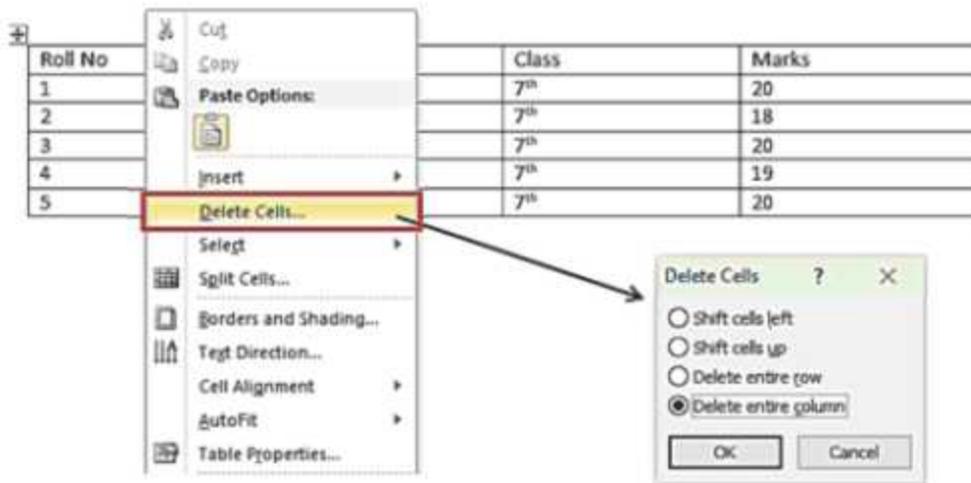
Fig 6.17 Delete Columns By Right Click option

6.4.5 Deleting Rows in a Table

Table rows can be deleted by performing the following steps:

- Bring the cursor in the Row which we want to delete

- Click on **Delete → Rows** option in the **Rows and Columns group** of the layout tab.

Fig 6.18 Delete Rows

We can also delete Rows by **Right – Click** on the Row to be deleted

- Select the **Delete Cells...** option.

- Select **Delete entire Rows** option and click OK button

6.4.6 Deleting Cells in a Table

Table cell can be deleted by performing the following steps:

- Select the cell which we want to delete

- Click on **Delete → Delete Cells...** option in the Rows and Columns group of the layout tab.
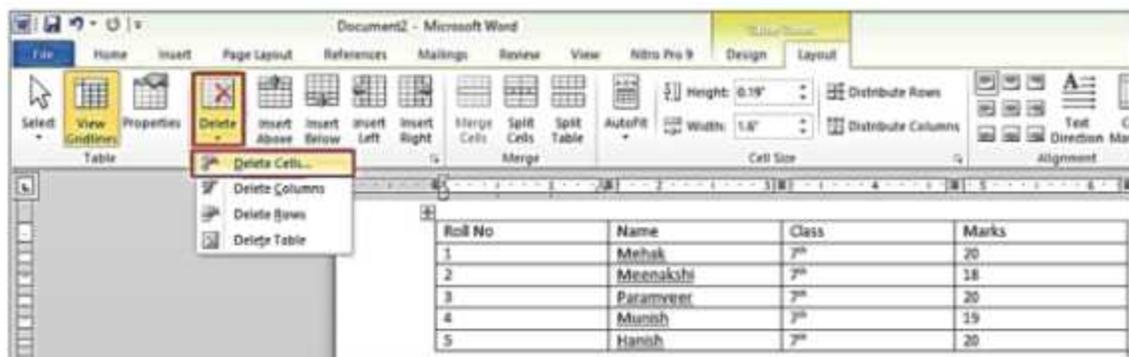
Fig 6.20 Delete Cell

- A dialog box as shown in following figure will appear:
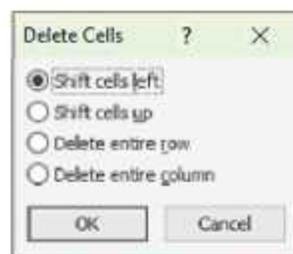
Fig 6.21 Delete Cells

- Select **Shift cells left** or **Shift cells up** option
- Click **OK** button

We can also delete cell by Right Clicking on the cell which we want to delete. After right clicking, click the **Delete Cells** option → Click either "Shift cells left" or "Shift Cells up"
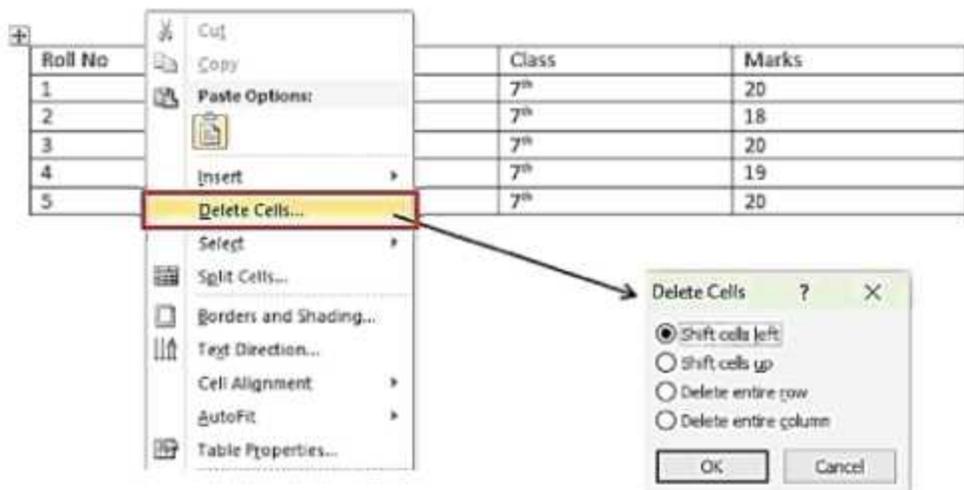
Fig 6.22 Delete cell by Right Click Option

6.4.7 Deleting Table

Entire table can also be deleted in MS Word by performing the following steps:

- Take the cursor to any cell of the Table
- Click on **Delete** → **Delete Table** option in the **Rows and Columns group** of the layout tab.
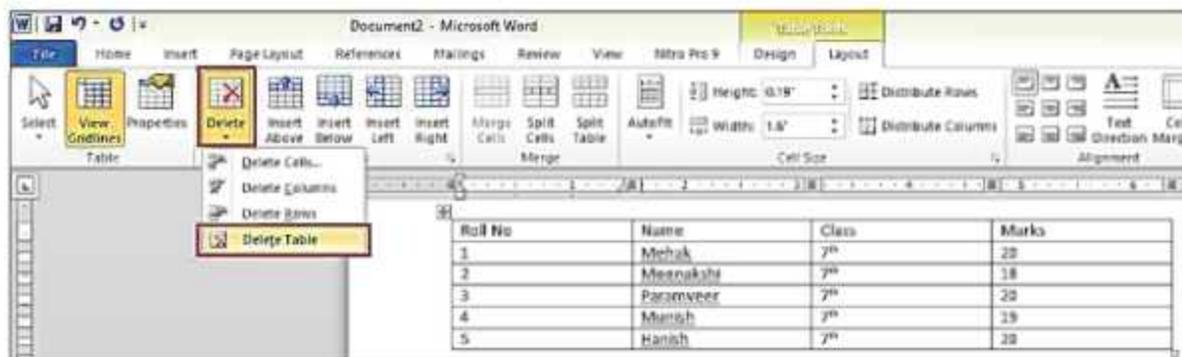
Fig 6.23 Delete Table

6.5 PROPERTIES OF A TABLE

In any Table, we can align cell-text to left, right, center and justified. We can also align our Table to left, right or center. We can also change the size of rows, columns and cells. All these can be done with the help of **Table Properties** option. Let us know how it can be done.
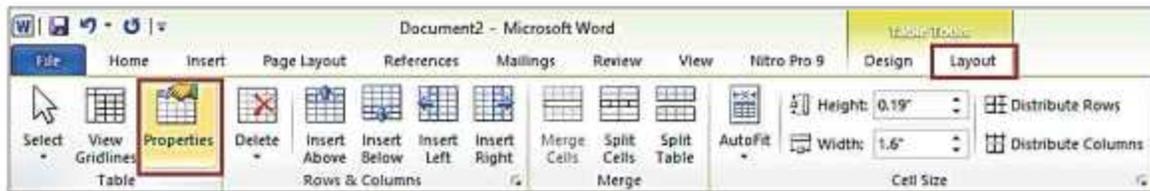
6.5.1 Alignment of Table

Place the cursor in the table and perform the following steps for the alignments:

- Click the **Layout** Tab
- Click the **Properties** button in the Table group. The Table Properties dialog box is displayed.
- Select the **Table** Tab of the dialog box.
- As per our choice, select right, left or center from alignment section.
- Click on OK button
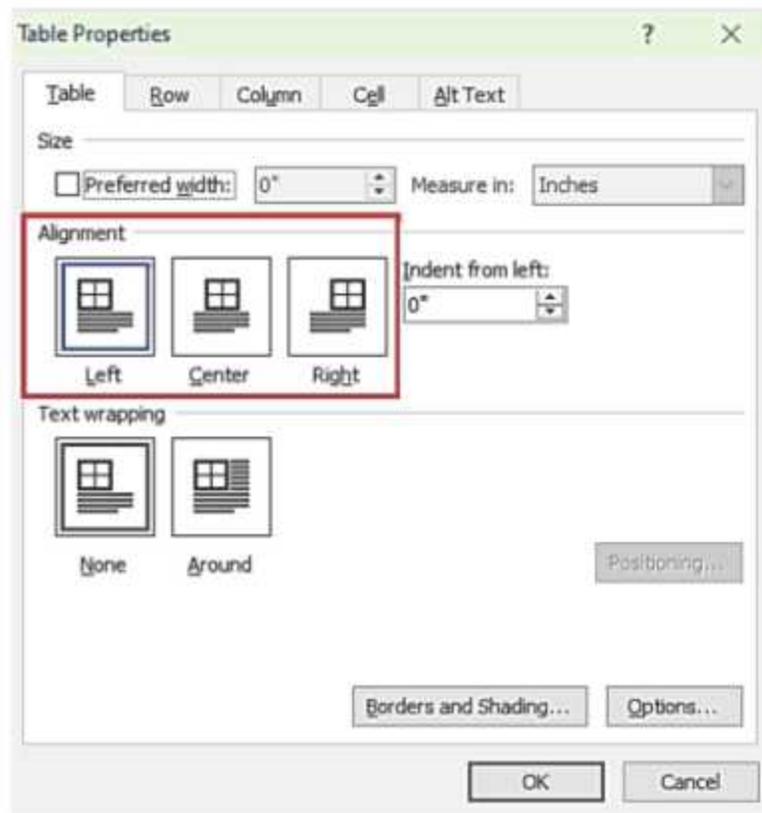
Fig 6.25 Alignment of Table

6.5.2 Changing the Size of Row, Column or Cell

Perform the following steps to change the size of Row/Column/Cell:

1. Place the cursor in that row, column or cell whose size we want to change.

2. Click the **Layout** Tab

3. Click the **Properties** button in the **Table** group. The Table Properties dialog box is displayed.

4. If we want to change the size of selected row then select Row tab. It helps us to change the size of selected row.We can approach the other rows with the help of **Previous Row and Next Row** buttons. No. of row will appear on specify height check button.

5. Click **Specify Height** checkbox in order to change the Height of the row and set the value for height of the row.

6. Similarly, we can change the width of Columns or Cells using the **Column** tab or **Cell** tab respectively.

7. Click on **OK** button

Note : We can also open the **Table Properties** dialog box by Right Clicking → Table Properties option at any cell of a table.

6.6 SPLITTING CELLS

Splitting cells means to divide a cell into two or more cells. Following are the steps to split a cell in MS Word:

1. Select the cell you want to split.

2. Click the **Layout** tab.

3. Click on **Split Cells** button in the **Merge** group.
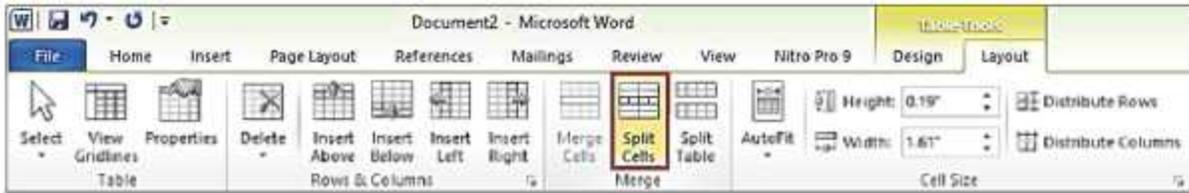
Fig 6.27 Splitting Cells option in Merge Group

4. In the Split Cells dialog box, enter the number of Rows and Columns into which we want to split the selected cell.

5. Click on OK. Cell will be divided into mentioned rows and columns.
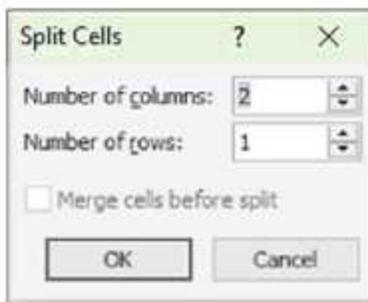
Fig 6.28 Splitting Cells Dialog Box

6.7 MERGING CELLS

Merging cells means to combine two or more cells into a single cell. Following are the steps to merge cells in MS Word:

1. Select the cells we want to merge.

2. Click the **Layout** tab.

3. Click on **Merge Cells** button in the **Merge** group.

4. The data gets combined/merged into one cell.
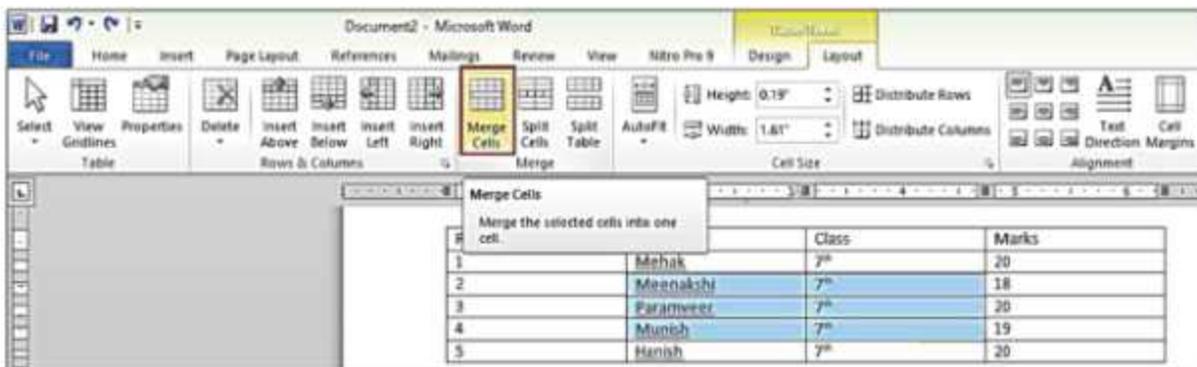
Fig 6.29 Merging Cells

6.8 SPLITTING TABLE

If our table is too large then it can be divided in more than one table. A Large table is divided into more than one table by using following steps:

1. Take the cursor to that row from where we want to divide the table

2. Click the **Layout** tab.
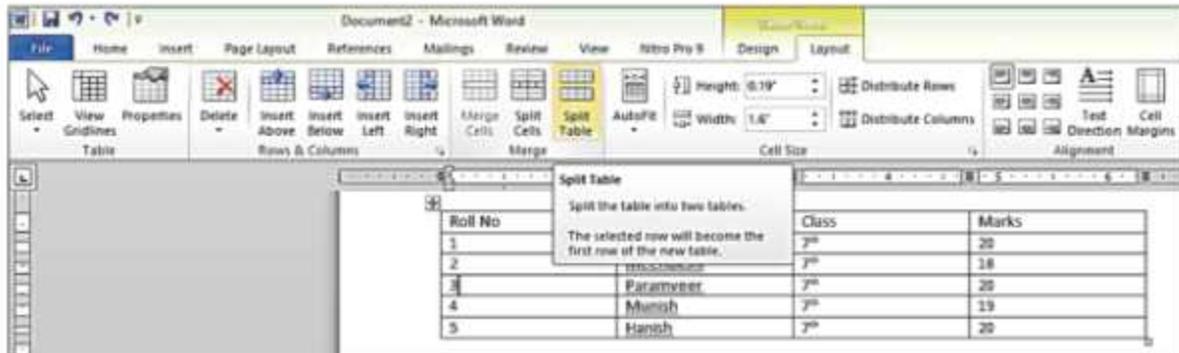
Fig 6.30 Splitting Table

3. Click on **Split Table** button in the Merge group.

> **Note :** Table can only be divided horizontally. If there is only one row in table and we want to divide it then a blank line will appear (no row) above.

Points To Remember

1. A **Table** consists of a number of columns and rows.

2. **Tables** are often used to organize and present information.

3. Horizontal lines of the table are called **Rows** and vertical lines are called **Columns.**

4. The intersection of column and row is called a **Cell.**

5. Using **Draw Table** option, we can draw a complex table, for example:a table that contains cells of different heights or a varying number of columns per row.

6. To move the cursor to the next adjoining cell in a table, either press the **Tab** key or press the **Right arrow** key.

7. To go to the previous cell of a table, either press **Shift + Tab** keys or the **Left arrow key.**

8. Word provides the facility to add columns to right or left of the existing column and insert rows above or below the selected row.

9. Dividing a cell into multiple cells is called **Splitting.**

10. Combining two or more cells into a single cell is called **Merging.**

11. Using **Properties** button, we can change the alignment of a table, size of rows, columns or cells.

1. **Multiple choice questions:**

    I. _____ key is used to move the cursor in the next adjoining cell of a table.
        - a) Ctrl
        - b) Shift
        - c) Tab
        - d) Home

    II. The table button is present on the _____ tab.
        - a) Home
        - b) Layout
        - c) Insert
        - d) View

    III. We can change the width of a column by selecting the _____ button in the Table Group.
        - a) Select
        - b) View Gridlines
        - c) Properties
        - d) None of these

    IV. A _____ consists of a number of columns and rows.
        - a) Document
        - b) Table
        - c) View
        - d) Data

    V. A _____ is an intersection of columns and rows.
        - a) Cell
        - b) Table
        - c) View
        - d) Data

2. **Very Short Answer Type Questions.**

    I. Which key is used to move the cursor to the next cell in a table?

    II. Intersection of a column and row is called?

    III. Which group of Layout tab contains the split cells option?

    IV. Which option can be used to join two or more cells?

3. **Fill in the blanks:**

    I. .... provides a convenient way of writing dates in rows and columns.

    II. Options to create tables are available in the table group of .... tab.

    III. .... cells means to divide a cell into two or more cells.

    IV. Using properties button, we can change the size of rows, columns or ....

4. **Short Answer Type Questions:**

    I. Define table.

    II. Write the name of options for inserting a table in Word document?

III. What is the use of Split Cells option?

IV. What is the use of Merged Cells option?

V. How will you enter data in Table Cells?

5. **Long Answer Type Questions:**

I. How do you insert a table in your document? Explain any method briefly.

II. Explain Properties button in Layout Tab?

Activity

Create the Following Date Sheet in MS Word

Date Sheet for December Test					
Date	Details of Subjects and Classes				
	6th Class	7th Class	8th Class	9th Class	10th Class
12/X/2000	English	Hindi	Punjabi	Maths	Science
13/X/2000	Hindi	English	Hindi	Punjabi	Maths
14/X/2000	Holiday			Computer Science	Computer Science
15/X/2000	Punjabi	Social Science	English	Hindi	Punjabi
16/X/2000	Holiday				
17/X/2000	Social Science	Punjabi	Social Science	English	Hindi
18/X/2000	Maths	Maths	Science	Holiday	
19/X/2000	Science	Computer Science	Maths	Social Science	English
20/X/2000	Computer Science	Science	Computer Science	Science	Social Science

INTRODUCTION TO MULTIMEDIA

CHAPTER - 7

INTRODUCTION

The term multimedia is a combination of two words, "multi" and "media". Multi refers to many i.e. at least two. Media refers to medium i.e. storage, transmission and communication. Multimedia also refers to a basic information type like text, graphics, images, audio, animation, video etc.

Therefore, multimedia is a combination of many types of media (i.e. text, graphics, images, audio, animation, video etc.) on a single medium in the same information unit.

Fig 7.1 Multimedia

The simultaneous use of two or more different forms of media (text, graphics, animation, sound and video) for effective information communication is referred to as multimedia. Multimedia is a technology that engages a variety of media including text, audio, video, graphics and animation either separately or in combination, using computers to communicate ideas or to disperse information.

7.1 COMPONENTS OF MULTIMEDIA

There are five components of multimedia i.e. text, sound, images, animation and video.
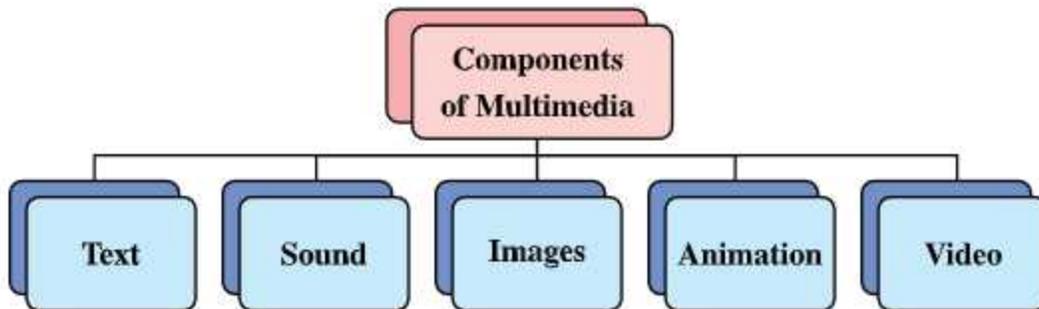
Fig 7.2 Components of Multimedia

7.1.1 Text

Text is the common way to communicate the information to others. It is one of the basic components of multimedia. Although multimedia include pictures, audio and video but text is the most common data type used in multimedia applications. Text used in multimedia can be categorized in two parts:

- **Static Text :** **Static text** is just plain old **text.**

- **Hypertext :** **Hypertext** is **text** which contains links to other **texts.**

7.1.2 Sound (Audio)

Audio is an important component of multimedia. Multimedia is concerned with recording and playing sound. Sound is an important component of multimedia because this component increases the understandability and improves the clarity of the concept. Audio includes speech, music etc. some audio formats are as below:

- **MIDI :** Its full form is Musical Instrument Digital Identifier. It's a sound standard. It's a cheap source for Musicians. These files are smaller than other Music Files. These files are mostly used for web pages.

- **Digital Audio :** Digital Audio is mostly used in Multimedia. These files are larger than MIDI files. Its sound quality is good. A special format is used for Digital Audio called WAV.

7.1.3 Images

Images are also an important component used in multimedia. Images are generated by the computer in two ways, bitmap or raster images and vector images.

- **Raster or Bitmap Images :** The most common form for storing images on a computer is a raster or bitmap image. Bitmap is a simple matrix of the tiny dots called pixel that forms a raster or bitmap image. Each pixel consists of two or more colors. For example MS Paint is a program that is used for creating Bitmap Images.

Fig 7.3 Raster or Bitmap Images

- **Vector Images :** Vector images are based on drawing elements or objects such as lines, rectangles, circles to create an image. We use programs to create images, that are called Vector Image Programming. The advantage of vector image is that relatively small amount of data is required to represent the image and therefore, it does not requires a lot of memory to store. We can't draw images directly with the help of mouse.

Fig 7.4 Vector Images

7.1.4 Animation

In animation still images are used for movement in a time. Animation consists of still images that are displayed so quickly that they give the impression of continuous movement. For movement
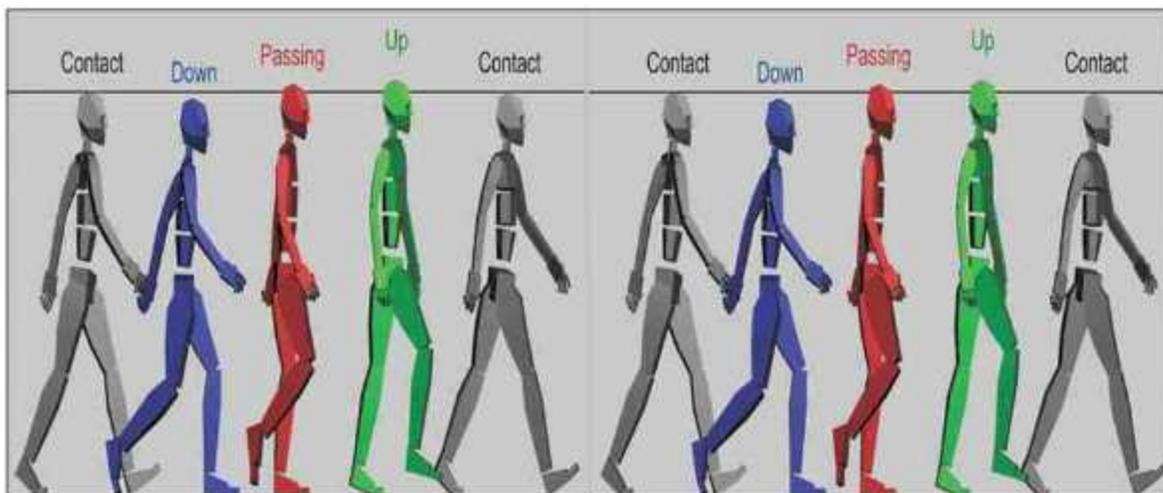
Fig 7.5 Animation

a number of effects are recorded. Animations may be two or three dimensional. Specific software's are used for animation like: Windows Movie Maker, Macromedia Director and Flash.

- **Path Animation :** A path animation is a type of Animation timeline that uses a Path Geometry as its input
- **Frame Animation :** A simulation of movement created by displaying a series of pictures, or frames is called frame animation.

Functions of Animation:

- Draw Attention
- To give Presentation
- To Practice

7.1.5 Video

Video is an important component of Multimedia. In this, moving images are shown. Moreover in video moving pictures are shown with sound. Video can be without sound. It is the best way to communicate with each other. In multimedia it is used to make the information more presentable and it saves a large amount of time. The video may be categorized in two types:

- **Analog Video :** The original video recording method that stores continuous waves of red, green and blue intensities.
- **Digital Video :** Digital video is a representation of moving visual images in the form of encoded digital data. This is in contrast to analog video

Advantages of Video:

1. Video information is effective because we can use audio,images etc. to create animations.
2. Student can be taught easily with the help of videos.

7.2. REQUIREMENTS FOR MULTIMEDIA

Multimedia resources are based on the ability of a computer to capture, process, and present text, pictures, audio and video. Selection of proper hardware, software and file format for developing multimedia product is based on the budget and type of content in the product and delivery requirements. Following is a description of infrastructure requirement for producing multimedia resources.

7.2.1 Hardware Requirements

The special hardware requirement for multimedia can be described in categories such as given below:

I. Input Devices : An input device is used to give essential directions to computer. Input Devices used in Multimedia are as follows:

- Keyboard
- Mouse
- Touch screen
- Scanner
- Voice Recognition System
- Digital Camera

II. Output Devices : Output Devices are used to take results from computer. Output Devices used in Multimedia are as follows:

- Monitors
- Audio devices
- Video devices
- Projectors
- Printers

III. Storage Devices : Storage Devices are used to store data processed by computer so that intermediate and final results can be stored. Storage Devices used in Multimedia are as follows:

- RAM
- Hard Disk
- Magnetic Tapes
- Optical Disk- CD-R, CD-RW, and DVD.
- Pen Drive and External Hard Disk

7.2.2 Software Requirements

Multimedia software are like tools, which provide an important framework for organizing and editing the elements of multimedia including graphics, sound, animation and video. A brief description of some of the software is as follows.

- Adobe Director
- CREATE Together
- Media Blender
- Media Works 6.2
- PlayMo
- Multimedia Builder

7.3 FILE FORMATS FOR MULTIMEDIA

The following are file formats used in multimedia:

7.3.1 Text Formats

I.   **RTF :** Its full form is Rich Text Format. It is a universal format. File of this format is easily accessible by all word processors.

II. **Plain text :** It supports Standard ASCII including characters, numbers and spaces. We can't do formatting in plain text. So we can't Bold, Italic and Underline a text in this format or file.

7.3.2 Image Formats

I. **TIFF :** Its full form is Tagged Image File Format. It can support color depth from1 bit to 24 bit.

II. **BMP :** Its stands for Bitmap. It can store color data of an image without compressing it.

III. **DIB :** Its full form is Device Independent Bitmap. These files are stored in a standard Bitmap

IV. **GIF :** Its full form is Graphics Interchange format. This file is mostly used in web pages and graphic software.

V. **JPEG :** Its full form is Joint Photographic Experts Group. It is a compressed file format. These files are not limited to color depth like GIF files because it has millions of colors.

VI. **PNG :** Its full form is Portable Network Graphics. It is also a compressed Raster graphical format. It is mostly used on web pages and graphical applications.

7.3.3 Digital Audio File Formats

I. **WAV :** Its full form is Waveform Audio File Format. These files are like AIF Files.

II. **MP3 :** Its full name is MPEG Layer-3 Format. It is a famous compressed file format. Its sound quality is good and file size is small.

III. **AIFF :** Its full form is Audio Interchange File Format. It was developed by Apple Computers to store audio format data.

IV. **WMA :** Its full form is Windows Media Audio. It is an audio data compression technique developed by Microsoft.

V. **RA :** Its full form is Real Audio Format. It is mostly used to play audio clips on web.

7.3.4 Digital Video File Formats

I. **AVI :** Its full form is Audio/Video Interleave. These files can be played on any video player.

II. **MPEG :** Its full form is Moving Picture Experts Group. These are compressed video files and can be audio/video file.

7.4 MULTIMEDIA PRESENTATION:

We can present our ideas effectively by using subject material in multimedia related to a specific subject. So we need to write script before preparing multimedia presentation. We need to specify which tools (Hardware and Software) to be used and how to use it before listeners. After preparing script we prepare its basic components-Audio, Video, Image and animation.

What to keep in mind before preparing Multimedia Presentation:

- We should keep minimum text in Multimedia Presentation.
- Quality of Audio and Music should be good.
- There should be the facility for user to use keyboard and mouse.
- Multimedia Presentation should be effective and of small size.

7.4.1 Types of Multimedia Presentation

Multimedia Presentation can be of many types, some of these are as follows:

I. **Virtual :** It is a type of technology. By using it we can prepare virtual reality presentation by selecting subject material based on a subject. We can perform effectively and best by using such presentation.

II. **Slide Presentation :** Slides are used in such type of presentation. Such slides can be prepared using Microsoft Power point. We can use Images, sound and video as per our requirement.

III. **Web Pages :** Web pages become multimedia resources and presentations when they are designed with media other than static images and text such as audio, video, animation and virtual reality.

7.5 APPLICATIONS OF MULTIMEDIA

Multimedia is one of the most interesting and fastest growing areas in the field of information technology. The capability of computers to handle different types of media makes them suitable for a wide range of applications. A brief account of multimedia applications in different fields can be traced as follows.

- **Education :** Multimedia is becoming popular in the field of education. It is commonly used to prepare study material for the students and also provide them proper understanding of different subjects. E-learning is the use of new multimedia technologies and the internet to improve the quality of learning by facilitating access to resources and services

- **Business Systems :** Business applications for multimedia include presentations, training, marketing, advertising, product demos, simulations, databases, catalogues. Instant messaging and video conferencing are provided on many local and wide area networks using distributed networks and internet protocols.

- **Medical Services :** Medical services are very much affected with the development of multimedia. Medical students are trained by using life demonstration of human body, various operations and other pathological and radiological investigation. They can practice surgery methods via simulation prior to actual surgery.

- **Entertainment :** Multimedia technology is a must need in each and every mode of entertainment. It is used in entertainment via radio, TV, online newspapers, online gaming, video on demand etc. Multimedia made possible innovative and interactive games that greatly enhanced the learning experience. Groups of people could play a game together, competing as individuals or working together in teams.

- **Public Places :** Multimedia is available in libraries, museums, malls, airports, railway stations, banks, hotels, trade shows and exhibitions and many other public places in the form of kiosks, providing information and help for customers. Banks are using kiosks in the form of ATM machines.

- **Multimedia Conferencing :** Multimedia conferencing or video-conferencing is a system that simulates face-to-face interactions among participating users, located far from each other, as if they were sitting and discussing in a single room.

Points To Remember

1. Multimedia is a combination of two words-Multi and Media

2. Five Component of Multimedia are-text, sound, images, animation, video.

3. Hardware and Software are necessary elements for Multimedia

4. Video is of two types-Analog Video and Digital Video

5. Animation consists of still images that are displayed so quickly that they give the impression of continuous movement.

6. We need to write script before preparing multimedia presentation.

7. Education, Business system, Medical Services, Entertainment, Public places and Multimedia conferencing are important applications of Multimedia

EXERCISE

1. Multiple choice questions:

I. Multimedia is a combination of two words _____ and _____

    a. Images, Sound   b. Audio, video

    c. Multi, media   d. Hardware, Software

II. Animation is of two types, these are _____ and _____

    a. Analog, digital   b. Static, Hyper

    c. Raster, Bitmap   d. Path, Frame

III. Requirements for Multimedia are _____ and _____

    a. Images, Sound   b. Analog, Digital

    c. Hardware, Software   d. Multimedia

IV. Input Devices consists of _____ and _____

     a.   Monitor, Printer   b.   RAM, Hard Disk

     c.   Keyboard, Mouse   d.   Hardware, Software

V. In Multimedia, Text is of _____ and _____ type.

     a.   Analog, digital   b.   Raster, Bitmap

     c.   Static, Hyper   d.   Path, Frame

2. Fill in the blanks:

I. A video can be classified into .... types.

II. There are .... types of text.

III. Path and Frame are the types of......................... .

IV. Full form of PNG is ....

3. Short Answer type Questions:

I. What is an Animation?

II. What is Video?

III. What is Multimedia Conferencing?

4. Long Answer Type Questions:

I. What is Multimedia? Explain the Components of Multimedia.

II. What are the requirements for Multimedia?

III. What is a Multimedia Presentation? What should we keep in mind before preparing Multimedia Presentation?

IV. Write down Applications of Multimedia.

Activity

Complete the following structure with components of Multimedia

CHAPTER - 8

STORAGE DEVICES

8.1 WHAT IS MEMORY?

Memory can be referred to as any medium capable of data storage. Computer memory can be electronic space provided by silicon chips or magnetic/optical media. It can be temporary or permanent storage for data and instructions to control a computer or execute one or more programs. The memory is divided into number of small parts called cells.

8.2 USAGE OF MEMORY

Just like a human brain, computer need memory to store data. Computer memory is the storage space in computer where data to be processed and instructions required for processing are stored. Computers store data in digital format and unlike human memory, the computer's memory doesn't get worse over time.

8.3 TYPES OF MEMORY

There are two main categories of memories:

    8.3.1   Primary memory: It is of two types.

        8.3.1.1   ROM: Read Only Memory

        8.3.1.2   RAM: Random Access Memory

    8.3.2   Secondary memory

8.3.1 Primary Memory

Primary memory or internal memory holds only those data and instructions on which computer is currently working.It uses micro conductors that are fast specialized electronic circuits. It has

limited capacity and data is lost when power is switched off. It is generally made up of semiconductor device. The data and instruction required to be processed reside in main memory. Let's learn about types of primary memory:

8.3.1.1 ROM : ROM means Read Only Memory. It is a smaller part of a computer's memory that is fixed in size and permanently stores manufacturer's instructions to run the computer when it is switched on. There are many types of ROMs available in market such as ROM, PROM, EPROM, EEPROM etc.

Fig 8.1: Read Only Memory (ROM)

8.3.1.2 RAM : RAM means Random Access Memory. Random access memory is that part of a computer's memory which is employed in running programs and in archiving of data. These are memory chips which provide access to stored data or instructions. It is hundreds times faster than secondary storage. When our computer boots up or starts, it gets loaded operating system into this memory (RAM). This allows our computer to access system functions, such as handling mouse clicks and keystrokes etc. Whenever we open a program, the interface and functions used by that program are also loaded into RAM. RAM is a very high-speed type of memory, which makes it ideal for storing active programs and system processes.

Fig 8.2: Random Access Memory (RAM)

8.3.2 Secondary Memory

Secondary memory also called External memory or physical memory or auxiliary memory. It stores information over the long term, even after the computer is turned off. Auxiliary memory

corresponds to magnetic storage devices such as the hard drive, optical storage devices such as CD-ROMs and DVD-ROMs etc. Let's learn some of the common types of secondary memories.

8.3.2.1 Hard Disk Drive : This type of memory is non-volatile. It is slower than main memory or primary memory. These are used for storing data/Information permanently. CPU does not access these memories directly; instead they are accessed via input-output routines. Content of secondary memory is first transferred to main memory, and then CPU can access it.

Fig 8.3: Hard Disk Drive

A hard disk consists of one or more rigid metal plates (also called platters) coated with a metal oxide material. It allows data to be magnetically recorded on the surface of the platters. The hard disk platters spin at a high rate of speed, typically 5400 to 7200 revolutions per minute (RPM). Storage capacities of hard disks for personal computers range from 500 GB to 2 TB approximately.
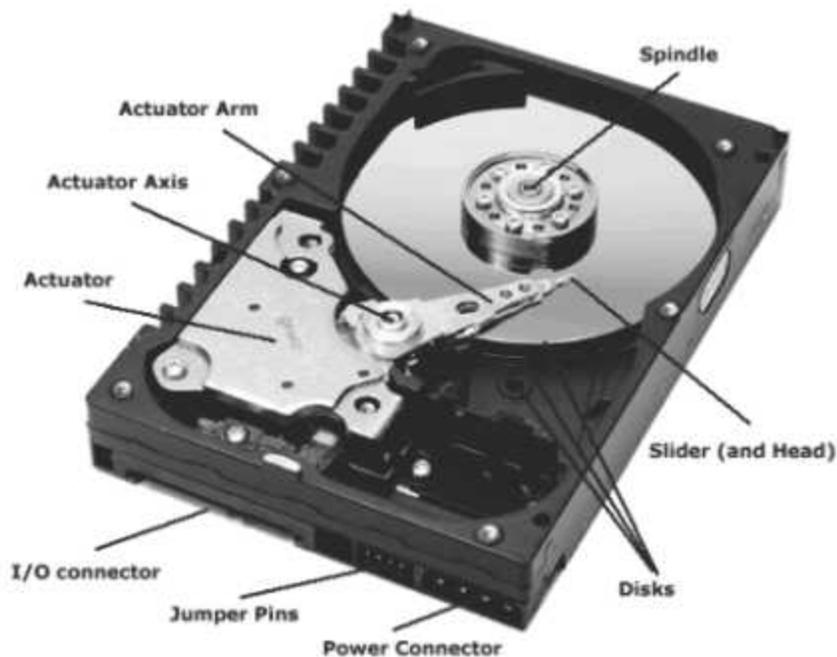

Fig 8.4: Internal View of Hard disk Drive

8.3.2.2 External Hard Disk Drive : A hard drive is a computer component that holds data. Every computer needs at least one hard drive to store its operating system, programs and user information. This drive usually is internal, or built into the computer, but as computer systems

have evolved and different needs, threats and circumstances have arisen, external hard drives have become more popular. External hard drives usually are used in addition to internal hard drives in order to store more data. They also allow the user to put sensitive, confidential or otherwise important information on them, then disconnect them and store them in secure locations. An external hard drive is a portable storage device that can be attached to a computer through a USB or wirelessly. External hard drives typically have high storage capacities and are often used to back up computers or serve as a network drive.

Fig 8.5: External Hard Disk

Advantages of External Hard disk drive:

1. An external hard drive is a portable storage device and operates on a plug-and-play basis.

2. It allows the user to back up or store information separate from the main internal hard drive.

3. Internet access regularly exposes computers to threats which could damage or corrupt sensitive documents, large music files, movies, images and other backup files. These can be kept securely and safely on an external hard drive.

8.3.2.3 Floppy Disk : These are small removable disks that are plastic coated with magnetic recording material. Floppy disks are typically 3.5″ in size (diameter) and can hold 1.44 MB of data. This portable storage device is a rewritable media and can be reused a number of times. Floppy disks are commonly used to transfer files between different computers. The main disadvantage of floppy disks is that they can be damaged easily and, therefore, are not very reliable.

Fig 8.6: Floppy Disk

8.3.2.4 Magnetic Tape : Magnetic tape is a sequential storage medium used for data collection and backup. Computer tape is made of flexible plastic with one side coated with a ferromagnetic material. Tapes were originally open reels, but were superseded by cartridges and cassettes of many sizes and shapes. Tape has been more economical than disks for storing data, but that is

changing as disk capacities have increased enormously. The major drawback of tape is its sequential format. Locating a specific record requires reading every record preceeding it.

Fig 8.7: Magnetic Tape

8.3.2.5 CD : Compact Disk (CD) is portable disk having data storage capacity between 650-700 MB. It can hold large amount of information such as music, full-motion videos, and text etc. It contains digital information that can be read, but cannot be rewritten. Separate drives exist for reading and writing CDs. Since it is a very reliable storage media, it is very often used as a medium for distributing large amount of information to large

Fig 8.8: Compact Disk (CD)

number of users. In fact today most of the software is distributed through CDs.

One side of a CD is very shining, just like a mirror. The shining surface of a CD has micro pits and plats to store information. These pits are not visible by naked eyes. A laser beam is used to read information from the disk.

There are two types of CDs:

1.   **CD-R :** CDs, which can be written only once, afterward you can only read information, such CDs are called Compact Disk Read only (CD-R).

2.   **CD-RW :** CDs, which can perform read and write operations as many times as desired by you. Such CDs are called Compact Disk Read and Write (CD-RW).

8.3.2.6 DVD : Digital Versatile Disk (DVD) is similar to a CD but has larger storage capacity and enormous clarity. Depending upon the disk type it can store several gigabytes (GB) of data. DVDs are primarily used to store music or 6 or more movies and can be played on your television or the computer too. DVDs are generally used to store very large multimedia presentations and movies that combine high quality sound and graphics. They are not rewritable media. It is also termed as Digital Video Disk.

Fig 8.9: Digital Versatile Disk (DVD)

We should take the following precautions at the time of using a CD/DVD:

1.   When we are not using a CD/DVD, keep it in its cover.

2.   Do not touch the shining side of a CD/DVD.

3. Do not write with pen or pencil on the backside of a CD/DVD.

4. Do not bend a CD/DVD.

5. Use soft cloth to clean a CD/DVD. You may use water to remove dirt from a CD/DVD.

8.3.2.7 Pen Drive : A pen drive is a portable Universal Serial Bus (USB) flash memory device for storing and transferring audio, video, and data files from a computer. They are small enough to fit into a pocket. Other names include flash drive, jump drive, and thumb drive. USB flash drives are often used for the same purposes for which floppy disks or CDs were used, i.e., for storage, data back-up and transfer of computer files. They are smaller, faster, have thousands of times more capacity, and are more durable and reliable because they have no moving parts. Additionally, they are immune to electromagnetic interference (unlike floppy disks), and are unharmed by surface scratches (unlike CDs).

Fig 8.10: Pen Drive

8.3.2.8 Memory Cards : Memory cards are a type of storage media that is most commonly used in digital cameras, handheld computers, MP3 players, cell phones, game consoles, and printers, to store pictures, videos, music, and other data. They are also referred to as a flash memory card. There are many types of memory cards in the market, each varying in size, compatibility, and storage capacity. Data stored on memory cards can be read by using card readers and also with the help of data-cables.

Fig 8.11: Memory Cards

Points To Remember

1. Computer memory is the electronic space in computer.

2. There are two main categories of memories: Primary memory, Secondary memory.

3. ROM means Read Only Memory and RAM means Random Access Memory.

4. Secondary memory is also called External memory or physical memory or auxiliary memory.

5. An external hard drive is a portable storage device and operates on a plug-and-play basis.

6. The shining surface of a CD has micro pits and plats to store information.

7. A pen drive is a portable Universal Serial Bus (USB). It is small enough to fit into a pocket.

8. Data stored on memory cards can be read by using card readers and also with the help of data-cables.

EXERCISE

1. Multiple choice questions:

I. Primary memory is also called _____.

a) Internal memory   b) External memory

c) Physical memory   d) Auxiliary memory

II. _____ memory is not a Read Only Memory.

a) ROM   b) PROM

c) EPROM   d) RAM

III. _____ is not a portable storage device.

a) External Hard Disk   b) Pen Drive

c) Hard disk Drive   d) Memory Card

IV. The memory is divided into number of small parts called _____

a) Cells   b) Area

c) Inter-section   d) None of these

V. USB means _____

a) Uniform Service Book   b) Universal Serial Bus

c) Universal Straight Bus   d) Uniform Serial Bus

2. Fill in the blanks:

I. Capacity of Floppy disk is ....

II. Capacity of Compact Disk (CD) is ....

III. ....memory unit is usually used to measure the Storage capacity of hard disks.

IV. Full form of ROM is ....

V. .... computer port is used to attach Pen drive?

3. Short Answer type Questions:

I. What is memory? Write down two main categories of memories?

II. Writ the name of any four Secondary Memory devices?

III. What is Memory Card?

IV. Write a short note on pen drive.

V. Write about CD.

4. Long Answer type Questions:

I. Write a note on Primary Memory?

II. What is HDD? Explain?

III. What is Secondary Memory? Explain any one secondary memory device?

IV. Write precautions that we must follow while using a CD/DVD.

V. What is External Hard Disk drive? Write its advantages?

Activity

- **Put the following Terms in respective Groups**

1. RAM	2. CD
3. Hard Disk	4. ROM
5. EPROM	6. Memory Card
7. DVD	8. EEPROM

Primary Memory

Secondary Memory
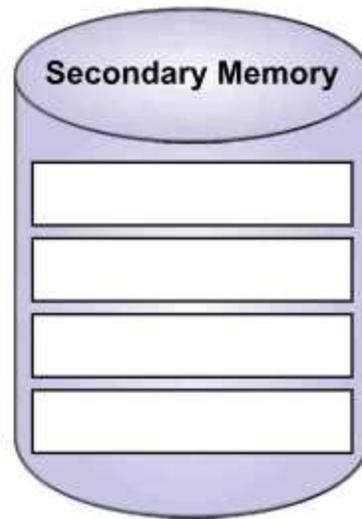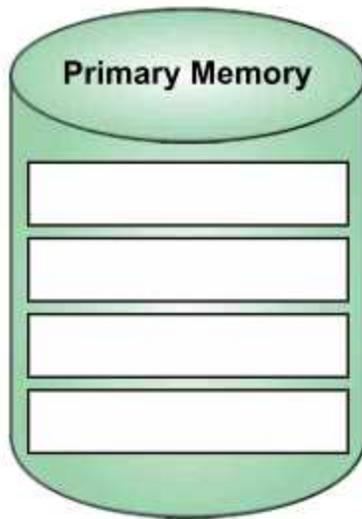
APPENDIX – I

COMMONLY USED FULL FORMS

Acronym		Full Form
BMP	:	BITMAP PICTURE
bpi	:	BITS PER INCH
CD	:	COMPACT DISK
CPU	:	CENTRAL PROCESSING UNIT
CUI	:	CHARACTER USER INTERFACE
DOS	:	DISK OPERATING SYSTEM
DRAM	:	DYNAMIC RANDOM ACCESS MEMORY
DVD	:	DIGITAL VIDEO DISK
E COMMERCE	:	ELECTRONIC COMMERCE
EMAIL	:	ELECTRONIC MAIL
FTP	:	FILE TRANSFER PROTOCOL
GB	:	GIGABYTE
GIF	:	GRAPHICS INTERCHANGE FORMAT
GUI	:	GRAPHICAL USER INTERFACE
IBM	:	INTERNATIONAL BUSINESS MACHINE
IC	:	INTEGRATED CIRCUIT
ISP	:	INTERNET SERVICE PROVIDER
IT	:	INFORMATION TECHNOLOGY
JPEG	:	JOINT PHOTOGRAPHIC EXPERTS GROUP
KB	:	KILOBYTE
MB	:	MEGABYTE
MIDI	:	MUSICAL INSTRUMENT DIGITAL IDENTIFIER
MODEM	:	MODULATER DEMODULATER
MPEG	:	MOVING PICTURE EXPERTS GROUP
MROM	:	MASKED READ ONLY MEMORY
PC	:	PERSONAL COMPUTER
PNG	:	PORTABLE NETWORK GRAPHICS

Acronym		Full Form
PROM	:	PROGRAMMABLE READ ONLY MEMORY
RAM	:	RANDOM ACCESS MEMORY
ROM	:	READ ONLY MEMORY
RTF	:	RICH TEXT FORMAT
SMTP	:	SIMPLE MAIL TRANSFER PROTOCOL
SRAM	:	STATIC RANDOM ACCESS MEMORY
TB	:	TERABYTE
UPS	:	UNINTERRUPTIBLE POWER SUPPLY
URL	:	UNIFORM RESOURCE LOCATER
USB	:	UNIVERSAL SERIAL BUS

APPENDIX – II

COMMONLY USED SHORTCUT KEYS

(MS WORD)

Shortcut Keys	Used for
Ctrl+A	Select All
Ctrl+B	Bold the selected text
Ctrl+C	Copy the selected contents
Ctrl+D	Opens the Font Dialog Box
Ctrl+E	Center Align text
Ctrl+F	Find text
Ctrl+G	Goto line/page no etc.
Ctrl+H	Replace text
Ctrl+I	Italic the selected text
Ctrl+J	Justify paragraph
Ctrl+K	Create Hyperlink for the selected text
Ctrl+L	Left Align the paragraph
Ctrl+M	Increase Indent
Ctrl+N	Create a New File
Ctrl+O	Open Existing File
Ctrl+P	Print File
Ctrl+Q	Clear Indents and Tabs
Ctrl+R	Right Align the text
Ctrl+S	Save File
Ctrl+T	Increase Hanging Indent
Ctrl+U	Underline the selected contents
Ctrl+V	Paste the contents from the clipboard
Ctrl+W	Close File
Ctrl+X	Cut the selected contents
Ctrl+Y	Redo the last action (if possible)
Ctrl+Z	Undo the last operation

Shortcut Keys	Used for
Ctrl+1	Single Line Spacing
Ctrl+2	Double Line Spacing
Ctrl+5	1.5 Line Spacing
Ctrl+]	Increase Font Size
Ctrl+[	Decrease Font Size
Ctrl+Shift+C	Copy the Formats of selected text
Ctrl+Shift+V	Paste the copied Formats on selected text
Shift + F3	Change Case
F7	Spelling and Grammar Check
Alt+F4	Close Program