



HANDBOOK

Basic Computer Course (BCC)



Developed by

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INTRODUCTION

Digital literacy has been widely recognised as one of the key challenges to economic and social development for both individuals and nations in the 21st century. Though India is home to more than 6,00,000 villages and 2,50,000 Gram Panchayats, the spread of digital literacy is almost non-existent. Some of the villages are too isolated to benefit from the country's economic progress as they experience multiple challenges when it comes to access to Information and Communication Technology (ICT). However, there is a growing desire among people in rural India to be part of the country's modernization process and be mainstreamed in the ever-growing digital revolution.

To mainstream the rural community in the ever-growing digital society, the Basic Computer Course (BCC) has been designed with the objective of providing hands-on training in computers to the rural people, enabling them to acquire basic ICT skills that empower them to become digitally literate, actively participate in knowledge based activities, access financial, social and government services, and use Internet for communications.

The BCC can equip a person to use computers in day-to-day life for professional and personal use to be able to:

- Acquire confidence in using computer techniques;
- Recognise the basic components of computers and its various terminology;
- Understand data, information and file management;
- Create documents using Word processor, Spreadsheet & Presentation Software;
- Understand computer networks, Internet;
- Browse the internet, content search, email and collaborate with peers;
- Use e-Governance applications;
- Use computer to improve existing skills and learn new skills.

This BCC Handbook enables its readers to understand the basics of computers and learn about its various components and features. The exercises provided in between the modules enable you to get a hands-on training of the topics learnt in the module.



1. KNOWING COMPUTER



LEARNING OUTCOMES

By the end of this module, you should be able to:

- Explain what a computer is
- Identify the hardware and software of a computer
- Set up and start a Computer

LESSON PLAN

- 1.1 Basics of a Computer
- 1.2 Concept of Hardware and Software
- 1.3 Setting up and Working of a Computer



1.1 BASICS OF A COMPUTER

What is a Computer?

A computer is an electronic device used to store and process data and information. It is a collection of two components - Hardware and Software. Hardware consists of the computer itself and any equipment connected to it and Software is the set of instruction that the computer follows in performing a task.

Through a computer you can connect with your family and friends living miles away, store information, book railway tickets, access your bank accounts, etc.

Classification of Computer

Following are the different types of computer:

1. Supercomputers
2. Mainframe computers
3. Microcomputers
4. Notebook and Laptop
5. Personal Digital Assistant
6. Tablets

Super Computers

They are the largest and the fastest computers and hence are very expensive. They are capable of processing trillions of instructions per second. Param is the first and only supercomputer in India so far. These computers are mainly used in National Defence Agency, government agencies and also for weather forecasting. They are used in fluid dynamic calculations, nuclear energy research and petroleum exploration.

Mainframe Computers

They are very large and expensive computers which are capable of supporting hundreds or even thousands of users simultaneously. They process data at a very high speed, measured in millions of instructions per second. Mainframes are often servers that control a network of computers. They are used in banks, insurance companies, manufacturing units, mail order companies and airline companies.

Micro Computers

These are divided into two groups:

- **Personal Computers** - They are standalone computers.
- **Workstations** - Workstations are specialised computers that are connected to networks of other computers.



Notebook and Laptop

A notebook weighs less than two pounds and can fit into a briefcase, yet it can compete with a microcomputer. A larger and heavier version is called a laptop.

Personal Digital Assistant (PDA)

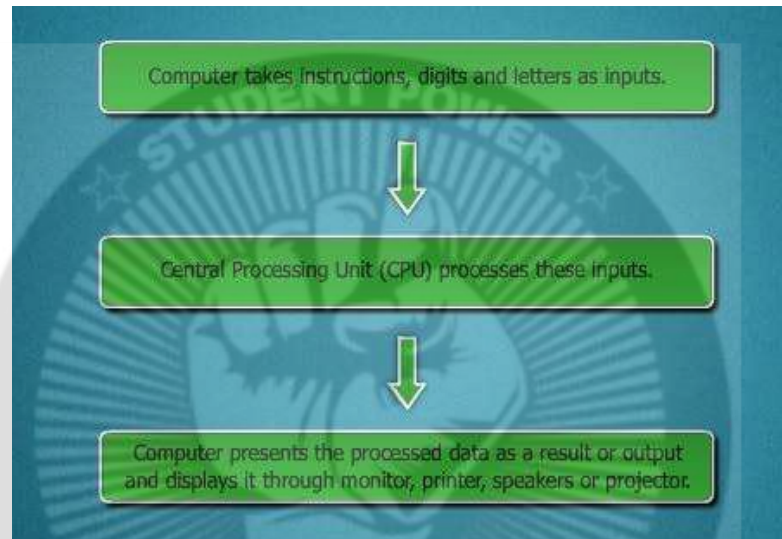
This is the smallest and handheld computer. PDAs are used to track appointments and shipments as well as names and addresses.

Tablets

A tablet is a mobile computer, larger than a mobile phone or a PDA. It is operated by touching the screen rather than using a physical keyboard.

How does a computer work?

A snapshot of the work process of a computer is as below:



For example, you want a sum of three numbers - 321, 245 and 678. You provide this data as an input using the keyboard, then you instruct the computer to provide the sum of these three numbers. The computer takes the numbers and the instructions as an input. Then these numbers get processed in the CPU as per instructions and then the output or the sum is displayed on the monitor. All these happen within a blink of an eye.



EXERCISE 1

1. Which of the following is the largest and fastest computer?
 - Mainframe Computer
 - Super Computer
 - Micro Computer
 - Notebook

2. Identify the correct definition of a Computer:
 - A computer is an electronic device to store data
 - A computer is an electronic device used to input data
 - A computer is an electronic device used to process data
 - A Computer is an electronic device used to store and process data

3. A personal computer is a type of:
 - Personal Digital Assistant
 - Mainframe Computer
 - Micro Computer
 - Notebook

Components of a Computer

Computers are made up of different components - Input devices, Memory devices and Output devices. Input devices are those devices that can be used to insert data, instructions or information into a computer. A few input devices are mouse, keyboard, microphone, joystick and scanner.



How do we provide input to the computer?

We give data or instructions to a computer using input devices. A **Keyboard** is used to enter data into a computer. There are different types of keys and their functions:

Typing keys: They include letters, numbers, symbols, punctuations and space bar.



Control keys: Control key, alt key, the windows logo key and the escape key are the control keys. These keys are used alone or in combination with the other keys to perform certain actions.





Function keys: These are labelled as f1, f2, f3, f4 and so on up to f12. The functionality of these keys differs from program to program and is used to perform specific actions.



Navigation Keys: It means locating position. It helps you to move around in documents, data sheets, presentations or WebPages and edit text. These include the arrow keys, home, end page up, page down, delete and insert.



The **Numeric keypad** is designed like a conventional calculator used to input numbers.



What is a mouse and how is it used?

A mouse is used as a pointing device to point to and interact with items on the computer screen. When you move the mouse, you can see a small moving arrow - this is called the 'pointer'. The pointer can provide data or instructions to the computer for processing. A mouse has two buttons - left and right. It also includes a scroll wheel between the two buttons that helps you to move between documents and webpages more easily.



Types of Output Devices:

Output devices are used to display the result to the user. The main output devices are Monitor, Printer, Speaker, Headphones and Projector.



Monitors: Monitor is the most common output device. Monitor is a screen used to display the output, such as words, numbers and graphics.

Monitors are of 2 types - Cathode Ray Tube (CRT) and Flat Panel Displays. CRT's are cheaper and have good viewing angle but they are bulky and consume more power. Flat Panel Displays are lighter and have no magnetic interference. They are also costlier.





Printer: A printer takes the processed data from the computer (soft copy) and generates a hard copy of the same. They are commonly used to print text data and images. Soft copy is an image or text file viewed on a computer's display whereas a hardcopy is the printed version of the same.



There are three types of printers: Inkjet Printer, Laser Printer and Dot Matrix Printer.

Speaker: A speaker is an output device through which we can hear sound. Without a speaker you will not be able to listen to music, hear an audio content, etc.



Headphones: They give sound output from the computer. They are similar to speakers except that they are worn on the ears, so that only one person can hear the output at a time.

Projector is an output device with which a text or an image is projected onto a flat screen. A projector is often used in meetings or to make presentations. It allows the display to be visible to many people.

EXERCISE 2

1. Which of the following device is used for inserting data into a Computer?

- Monitor
- CPU
- Printer
- Keyboard

2. Which of the following is an output device?

- Printer
- CPU
- Mouse
- Keyboard

What is a Computer Memory?

When you know something, it is stored in your memory. In the same way, the place where computer stores data and programs is called Computer Memory.

Computer has 2 types of Memory - Primary/Main Memory and Secondary Memory.



The main memory is very fast. It is called Random Access Memory or RAM. Data and instructions are stored in the main memory from where it can be retrieved from Central Processing Unit (CPU) for processing results. RAM is the memory in which all the programs are stored. The speed of the computer depends on the RAM. Cache memory is a memory that is a part of RAM and is very near to the processor. It is used to improve processing speed.

The primary memory is limited, so to store unlimited data we use secondary memory. Any data or program that is kept in secondary memory has to be copied by RAM because the computer cannot process data directly on secondary memory.

The examples of Secondary Memory are – Pen Drives, Hard Disk, External Hard Disk, Floppy Disk, Magnetic Tapes, Magnetic Bubble Memories and Optical Memories.

How does a computer store data in its memory?

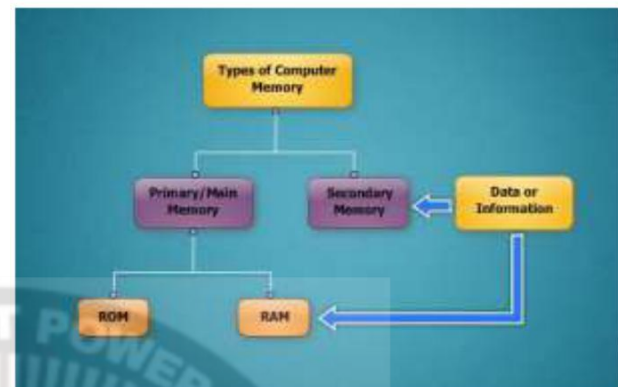
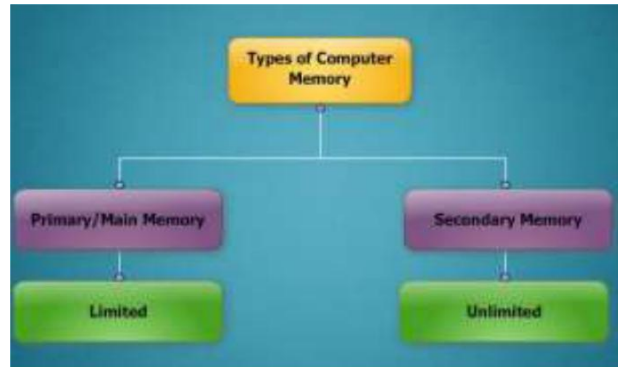
Computer stores all information in just two digits 0 and 1. A single binary digit, that is, a 1 or a 0 is called a bit. A group of eight bits is called a byte.

- 1 byte is equal to 8 bits.
- 1 Kilobyte or 1 KB is equal to 1024 Bytes
- 1 Megabyte or 1 MB is equal to 1024 KB
- 1 Gigabyte or 1 GB is equal to 1024 MB

1.2 CONCEPT OF HARDWARE AND SOFTWARE

All physical components of a computer that can be touched or felt are called Hardware. The electronic circuits and mechanical components such as Hard Disk, Printer, CPU, Keyboard and Mouse are Hardwares.

Hardware devices are very important but they are useless without the instructions that control them.



The Instructions that are used to control hardware and accomplish tasks are called Software.

Software is a general term used for computer programs. These programs are planned step-by-step set of instructions that direct the computer what to do and how to do. There are two types of software - Application Software and System Software.

Application Software: An application is a job or a task that a user wants to accomplish through a computer. Application Software is a program that helps the user to perform a specific job. It enables a user to write a letter or create a drawing. Microsoft Word and Microsoft Paint are examples of Application Software.

System Software: The programs that are directly related to the computer hardware are called System Software. For example, to run a computer you need an operating system, which is a System Software.

EXERCISE 3

1. Which of the following is System Software?

- Ms Paint
- Ms Word
- Power Point
- Operating System

2. 1 Megabyte or 1 MB is equal to:

- 512 GB
- 512 KB
- 1024 GB
- 1024 KB

1.3 SETTING UP AND WORKING OF A COMPUTER

How do you use a computer?

A computer or a computer system mainly consists of a system unit or case and other devices such as Monitor, Keyboard, Mouse, Speakers and Microphone. In order to use a computer we need to connect all the devices to the system unit.



How do you connect a computer?

You need to follow the following steps in order to connect a computer:

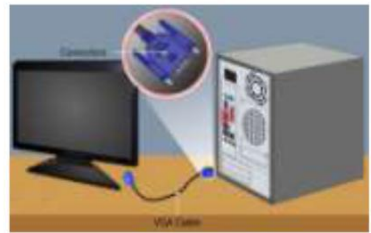
1. Place the computer on a desk or table.
2. Place the system unit next to the monitor because we need to connect a few wires between them. It can be under the table on a dry stool or beside the monitor. Be sure of the place where the system unit is to be kept.

The place should be well ventilated and should have sufficient airflow which will prevent the system unit from overheating.

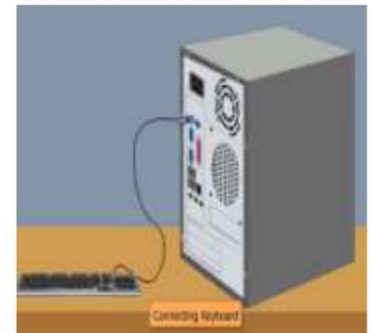


3. The rear portion of the system unit has all the various connection slots or ports for connecting various devices. First, connect the monitor to the system unit.

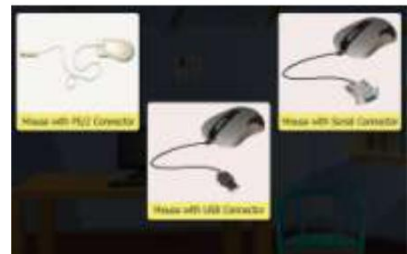
4. The video port of the system unit is called the VGA port. The colour of the video port and the connectors of the VGA cable are blue to make them easier to identify. Connect one end of the VGA cable to the video port in the system unit and the other end to the monitor.



5. Now you need to connect the keyboard into the system unit. A keyboard has 2 types of connectors – PS/2 connector and USB Connector. You can connect the keyboard to any of the 2 ports depending on its type. Desktop computer keyboard often comes with a PS/2 connector. Connect the keyboard to the keyboard port of the system unit.



6. A mouse has three models of connectors: (i) Mouse with PS/2 Connector; (ii) Mouse with USB Connector; and (iii) Mouse with Serial Connector. You need to connect the mouse in the appropriate port in the system unit. For example, if it has a serial connector, connect it to the serial port in system unit.



7. Now, you need to connect the printer to the system unit. A printer has two models of connectors - Parallel Port Connector and USB Port Connector. You can connect the printer to any one of the two ports in the system unit depending on the type of connector in the printer.

8. Now that all the main peripherals like the monitor, printer mouse and keyboard are connected to the system unit, all you have to do is to provide power supply to the system unit and the monitor using two power supply cables that come with the computer. Plug one power supply cable into the power supply plug in the system unit, plug another power supply cable into the monitor. Now plug both these power supply cables



to the power plugs in a switch board. The computer system is now ready to be used.

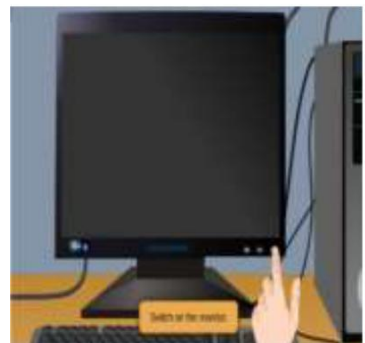
EXERCISE 4

Identify the correct step to connect VGA cable to the system unit?

- Connect one end of the VGA cable to the video port of the CPU, and the other to the switch board.
- Connect one end of the VGA cable to the video port of the CPU, and the other to the monitor.
- Connect one end to the power supply switch board, and the other to the CPU.
- Connect one end of the VGA cable to the video port of the CPU and the other to the keyboard.

Steps to start a Computer

1. Switch on the power supply of both the system unit and the monitor.
2. Press the power button of the system unit. It is usually located in the front side of the system unit. Ensure that the LED of the unit is switched on.
3. Now, switch on the monitor. Press the power button on the front bottom side of the monitor. Ensure that the LED of the monitor is turned on.
4. In few seconds, the display appears on the monitor. The boot screen could be seen as soon as the monitor starts. Wait until everything is loaded and Windows desktop screen is displayed on the monitor. Now your computer is ready to be used.



COMMON TROUBLE SHOOTING

Some common problems might occur even after you have started a computer. For example:

Problem: You have switched on the power supply of the system unit and the monitor and pressed the power button of the system unit. Still the LED of the system unit is not ON and the system does not start.

Solution: In this case double check if there is any loose connection in the cables. It is advised to remove it and plug-in again and try repeating the procedure of starting a computer.

Problem: After starting the computer, the boot screen does not appear on the monitor.

Solution: Check if the monitor is turned on, check the connection of the monitor or re-connect.

Problem: The computer has started but you are unable to use the keyboard or the mouse.

Solution: You need to check that the keyboard or mouse is connected to the correct port. Check the keyboard or mouse connector for bent, broken or missing pins. Also, you can try re-connecting your keyboard and mouse, restart your computer and see if that fixes it.

EXERCISE 5

1. Identify the first step of starting a Computer

- Press the “power” button of the monitor.
- Press the power button of the CPU.
- Switch on the power supply.
- Press the enter key.

2. Which of the following parts of the computer system is getting connected to the printer?

- System Unit
- Monitor
- Mouse
- Keyboard

MODULE 1 - ASSESSMENT

1. Which of the following is input?

- The operation of data or information as per given instruction
- Letters, numbers and images
- The processed data or information given by a computer

2. Which of the following are the control keys?

- Windows logo key and control keys
- F1, F2, F3 Keys
- Arrow and Delete Keys

3. Identify the output devices from the following

- Mouse and Keyboard scanner
- Digital Camera
- Printer and Monitor

4. What is the significance of a projector?

- In meetings or to make presentations
- In watching movies
- In playing video games

5. The place where computer stores data and programs is called?

- Hardware
- Software
- Memory

6. The primary memory is also known as?

- Auxiliary Memory
- Main Memory
- Secondary Memory

7. Which of the following is the correct procedure of starting a Computer?

- Switch on the power supply, press the “power” button located on the system unit, press the power button of the monitor.
- Switch on the power supply; press the “power” button of the monitor, press the “power” button located on the system unit.
- Press the “power” button of the monitor, press the “power” button located on the system unit, switch on the power supply.

8. What should you do if the mouse is not working?

- Change the mouse
- Check the mouse is connected to the correct port
- Check the keyboard connection to the system unit

9. How to troubleshoot, if LED of monitor is not turned ON while starting a computer?

- Double check if there is any loose connection in cables or re-do the procedure again.
- Tap the Monitor.
- Press the space key.

10. Which of the following is Application Software?

- Operating System
- MS- Excel
- CPU

2. OPERATING SYSTEM AND COMPUTER BASICS



LEARNING OUTCOMES

By the end of this module, you should be able to:

- Describe the functions of Operating System
- Manage files and folders in a computer
- Use computer accessories

LESSON PLAN

2.1 Getting started with Operating System

2.2 File and Folder Management

2.3 Using Accessories

2.1 GETTING STARTED WITH OPERATING SYSTEM

What is operating system?

Operating System is a program that helps us to interact with other computer programs. The computer is useless without an operating system. There are various types of operating systems available today.

Computers use a different language than us; this language is made up of digits. The operating system acts as an interpreter. It helps us talk to the computer. In simple language we can say that the operating system is an interface between user and computer. The Operating System also enables the user to effectively use the system resources and access other programs. All other programs need operating system to start them, but the operating system starts by itself. This is why when we switch on a computer we see the respective operating systems screen. The operating system starts the computer automatically when power is turned on.



EXERCISE 1

Which of the following statements are correct for operating system?

- It is an interface between user and Computer
- It is application software
- It starts the computer automatically when power is turned on
- It starts itself

What are the functions of an Operating System?

The major functions of the Operating System are:

- It controls and coordinates the operation of a computer
- It eases the interaction between the user and the computer
- It controls input and output devices
- It controls execution of computer programs
- It manages the use of the main memory of Computer
- It helps the user to manage and manipulate files.



Popular Operating Systems

There are number of operating systems available today. Some famous ones are:

- i. Unix
- ii. Linux
- iii. Windows 9x
- iv. Windows XP
- v. Windows NT

- vi. Windows 2000
- vii. Windows 8

- viii. Windows 7
- ix. Android
- x. Macintosh OS



All these operating systems have some unique features. Android and Windows 8 are also used in mobile phones. Windows family of operating systems is the most popular operating system. This is made by the Microsoft Corporation of the United States of America.

To learn about the version of a Windows operating system, you need to go to the desktop and right click on 'Computer' and select 'Properties'. You can then see the name and the version of the Windows operating system.

EXERCISE 2

Identify the functions of an operating system:

- It controls the input and output devices
- It manages the use of Computer Memory
- It starts automatically when the computer is switched on
- It controls execution of Computer Programs

Classification of Operating System

Operating system can be user friendly with many icons and images or it can be just text or character based. The Operating System can be classified into 2 types: Character User Interface and Graphical User Interface.



Character User Interface: Look at both the images above. The first one does not have any icons or images, it has only text and characters. Hence it is called Character User Interface (CUI). We perform any task on CUI by giving commands in texts such as re-name, CLS, CD, MD and DIR or directory. Example of CUI is Disk Operating System (DOS).

Graphical User Interface (GUI): The second image has a background picture as well as many icons. Hence we call it a Graphical User Interface (GUI). Examples of GUI are Windows XP, Windows NT and Windows 7.

More about GUI of Windows 7

This interface makes it easy to interact with the applications that you want to use. It also helps you to use programs and keep them organised. Windows are a WYSIWYG kind of GUI, which means, 'What You See Is What You Get'. If the Operating System in your computer is Windows, the first screen that appears after switching on your computer is the Desktop. You can use the windows desktop to keep all the applications and utilities organised in the computer.



The desktop is divided into 2 areas - Main Area or the Desktop and the Task Bar. The narrow strip at the bottom is called the Task Bar. The task bar contains a start button that you can use to access all the programs of the computer. You can also pin the various programs to the task bar as icons to be used as quick access to the programs. The task bar also has a clock at the right side bottom of the desktop. The desktop has a background, which is called Wallpaper.

EXERCISE 3

Which of the following is an example of Character User Interface?

- Windows 7
- DOS or Disk Operating System
- Windows XP
- Macintosh OS

2.2 FILE AND FOLDER MANAGEMENT

Desktop

The first screen that you get when you start and log on to your computer is called a Desktop. The small pictures on the desktop are called desktop icons. These icons represent shortcut for files, programs and folders which could be quickly and easily accessed.



Task Bar

The horizontal bar at the very bottom of the screen is called the Task Bar. The task bar also contains many icons and shortcuts. A task is any work that you perform on a computer. Windows 7 is a multi tasking operating system which means it can help you to do multiple tasks at a time, in other words it helps you to run more than one program simultaneously. The task bar displays all the running applications and programs as icons. It also helps you access many applications and programs in the computer through these icons. The task bar provides an easy way to switch between multiple programs running on the computer. If a number of applications are running and there is not enough space available on the task bar to keep all the icons, then similar types of icons can also be grouped together.



Start Button

Through the Start button, you can access programs and other system utilities. When you click on the start button, the start menu appears listing various programs installed the computer. You can use Control Panel in the start menu to change various



hardware and software settings in your computer. You can also use Help and Support menu item in the start menu to get any help you need while working with Windows. With the help of start menu you can shut down your computer with a click only. You can also log off from the computer, switch between users, restart the computer and lock the computer using the start menu.



Changing System Date and Time

To change the system date and time, click on the date and time present on the right side of the task bar. After this, a clock and a calendar appear. Following are the steps to change the system date and time:

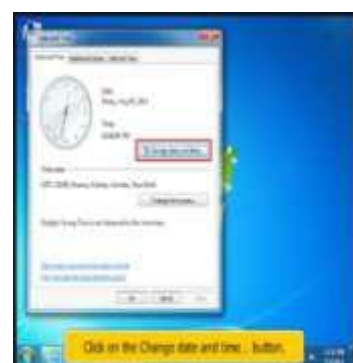
Step 1: Click on the date and time on the taskbar

Step 2: Click on the change date and time settings link

Step 3: Click on the change date and time button

Step 4: Set date and time

Step 5: Click OK to save changes and return to the date and time dialog box



Step 6: Click OK on the date and time dialog box to save changes and close the dialog box.

EXERCISE 4

1. System Clock is found at?

- Desktop
- Taskbar
- Icons
- Under Start Menu

2. Which option is used to change various hardware and software settings of your computer?

- Desktop
- Control Panel
- Taskbar
- All of these

Desktop and its Display Settings

Desktop is the display area that you see when you log onto your computer. You can change the appearance and personalisation or the way the desktop behaves. The picture behind the icons is called Wallpaper or the desktop background.

Just like you decorate your room and desk with pictures, you can decorate your desktop too by changing the wallpaper or desktop background. When you keep the computer idle for some time or if you do not work for a while on the computer, an animation of pictures or text appears on the screen. This is called a Screen Saver.

You can set a screen saver of your choice or can even set a password and assign timing for the screen saver. Once you set the timing, the screen saver starts by itself when the computer is left idle. Assigning a password to your screen saver locks your screen, therefore, no one can access your desktop if you are away from your computer for a long time. You can also change the theme of your Windows appearance and can customise it as 'My theme'. You can also change the colour of Windows by using the Windows colour icon.



Changing Desktop Background

You can change your computers wallpaper or desktop background with images and pictures of your choice.

How to change a desktop background?

When you right click on the empty space on the desktop, a popup menu appears. Click on the 'Personalize' option from the menu; personalization window appears on the screen.

This window has options for changing the display settings.

When you click on the desktop background link it shows a number of pictures which can be set as a background. You can choose a picture and set it as your desktop background. You can also browse pictures and set one as your desktop background. Click on the 'Save Change' button to save the changes. The background of the desktop will change. Minimise the personalisation window to check and verify the change of the desktop background.



Steps to Change the Desktop Background

- Step 1: Right click on the empty space on the desktop
- Step 2: Click on the personalize option from the menu
- Step 3: Click on the desktop background link
- Step 4: Choose a picture and set it as your desktop background
- Step 5: Click on the save changes button to save the changes.

Setting a Screen Saver

- Step 1: Right click on the empty space on the desktop
- Step 2: Click on the personalize option
- Step 3: Click on the screen saver link
- Step 4: Click on the screensaver dropdown menu and select a screen saver from the list
- Step 5: Set the time for the screen saver to start by selecting number of minutes from wait combo box
- Step 6: Click on the preview button preview the screen saver
- Step 7: Click on the apply button to apply the screen saver
- Step 8: Click on the OK button to save the changes.



EXERCISE 5

1. An animation of pictures or text that appears on screen if the system is ideal is called?

- Wallpaper
- Screensaver
- Themes
- None of These.

2. Which are the correct steps used for changing wallpaper?

- Right click on the desktop, click on the personalize option from the menu, click on the desktop background link, choose a picture and set it as your desktop background.
- Right Click on the desktop, click on the screen resolution option, click on the desktop background link, choose a picture and set it as your desktop background.
- Right click on the desktop, click on the personalise option from the menu, click on the display link, choose a picture and set it as your desktop background.
- Right Click on the desktop, click on the screen resolution option, click on the display link, choose a picture and set it as your desktop background.

Files and Folder Management

You can create folders in a computer to store computer files.

What is a computer file?

In a computer any self contained piece of information that is available to the operating system and individual programs is called a file. A file can be a document, an image, music or a movie. To keep several files at one place, you create a folder.

Windows explorer on your computer window helps you to manage and view the hierarchy of folders on your computer. You can create a file or folder in any of the drives in the computer. You can create a file or folder on the desktop too. After creating a file or folder, you can either rename, copy, paste or simply move it from one location to the other. You can also delete a file or a folder if you do not require it. If you manage your files and folders well, it saves you a lot of time and helps you to work more

efficiently. To manage files and folders, you need to be able to work with files and folders.

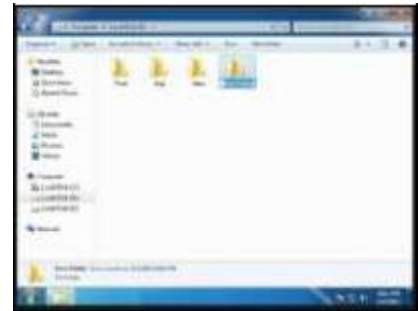


Working with Folders

How to create a folder in a drive?

The following steps need to be followed to create a new folder in the drive:

- Click on the start button to show the start menu.
- Click on the 'Computer' to display the computer window or windows explorer.
- Click on the 'Local Disk (D:)' icon to view the content in drive D.
- Click on the new folder in the menu bar to create a new folder. You can give name to the new folder and press enter or if you do not want to name the folder at that point of time, you can just press enter, which creates a folder with default name as 'New folder'.
- Alternatively, right click on the empty space on the right panel of the selected drive, a popup menu appears. Point the mouse to the 'New' option and then click 'Folder'. Press enter to create folder with default name as 'New folder'.
- To rename the new folder, select the folder, click on the organize dropdown menu in the menu bar, select rename from the menu, type 'Chetna' and press enter.
- The new folder has been renamed to 'Chetna'. A file or folder name cannot contain any of the following characters / \ : " * ? < > |



EXERCISE 6

1. Any self contained piece of information is called?

- File
- Folder
- Icon
- Taskbar

2. Which are the correct steps used to rename any folder?

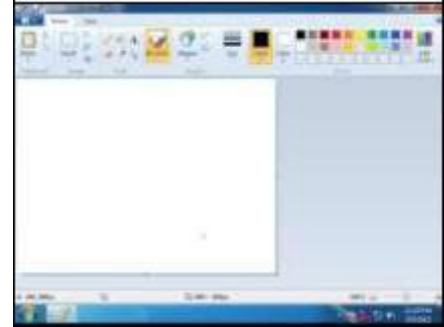
- Select the folder, right click on the organize drop down menu, select rename from the menu, type the new name and press enter.
- Select the Folder, right click on the organize drop down menu, type the new name. Press enter.
- Right click on the organize drop down menu, select rename from the menu, type the new name, press enter.
- Select the Folder, select rename from the menu, type the new name, and press enter.

2.3 USING ACCESSORIES

Introduction

Under this section, you will learn how to use various accessories of Windows such as Paint, Calculator and Notepad. To access these accessories in a computer, you need to follow these steps:

- Click on the start button on the task bar
- Point the mouse to 'All programs'
- Click on 'Accessories'
- The various accessories are listed here
- Click on an accessory to access it.



Paint

You can use paint to create drawings on a blank drawing area or in existing pictures. Paint is used to create, edit and view pictures. You can use self created pictures as our desktop background. You can also copy and paste a paint picture to any other document.

Using Paint

To run paint, click on the start button; point the mouse to all programs, click on accessories and select paint. The paint window appears. Or you can type paint in the search programs and files textbox in the start menu.

The paint window is divided into 4 major areas: Paint button, Quick Access toolbar, Drawing area and Ribbon.

Paint button: With the paint button you can perform various actions. The various options in the paint button are: Open, New, Save and Print.

Quick Access toolbar: It helps you quickly access frequently used tools such as save, redo and undo. You can also customise the quick access toolbar by selecting items from the drop down list.

Ribbon: A Ribbon contains two tabs - Home and View.

Home tab: The home tab

provides tools that help in creating and editing images. It provides many options that are majorly categorised into various sections like Clipboard, Image, Tools, Brushes, Shapes and Colours.



- **Clipboard:** It consists of three options - Cut, Copy and Paste. By using these option you can cut, copy or paste a selected object in paint. These options help you use one object many times in a picture.
- **Image:** In this section, the various options that help you in selecting and editing objects are - Select, Crop, Resize and Rotate.
- **Tools:** It provides various tools that you can use to draw and edit a picture. These tools are Pencil, Fill with Colour, Text, Eraser, Colour picker and Magnifier.
- **Brushes:** This drop down menu helps you choose different kinds of brushes to draw a picture.
- **Shapes:** It provides various shapes that you can use in your picture. It also provides the line and curve tools to draw a straight line and a smooth curved line respectively.
- **Colours:** It provides a variety of colours to choose from while drawing a picture.

EXERCISE 7

1. Tools like Pencil, Eraser, Text and Magnifier are found in?

- Tools
- Clipboard
- Shapes
- Image

2. Which of the following is not the part of the paint window?

- Paint Button
- Quick Access Toolbar
- Ribbon
- Writing area

What is a Notepad?

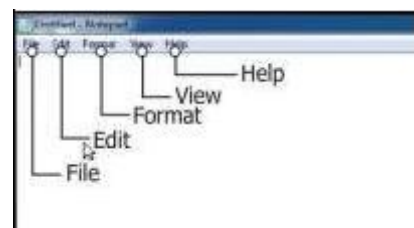
You can write names and numbers or any textual detail or information on a Notepad. It is a text editing program. You can view and edit text files using a Notepad.

How to open a Notepad file?

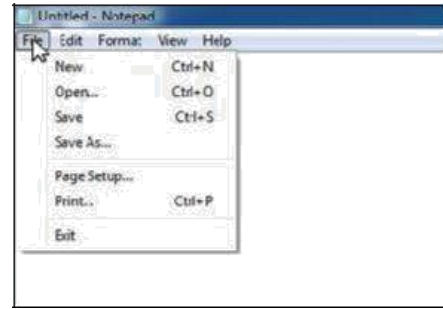
- Click on the start button
- Point the mouse to all programs and click on accessories and then Notepad.
- The Notepad window appears or you can type Notepad in the search programs and files textbox in the start menu. The notepad window has a blank space where you can write, edit and view text.

Components of Notepad

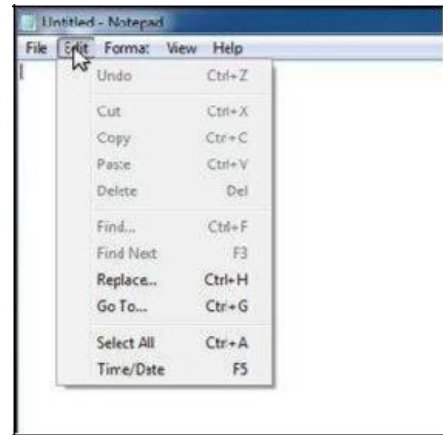
The menu bar of the Notepad file contains various items such as File, Edit, Format, View and Help.



The **File** menu provides various options like New, Open, Save, Save As, Page Setup, Print and Exit.



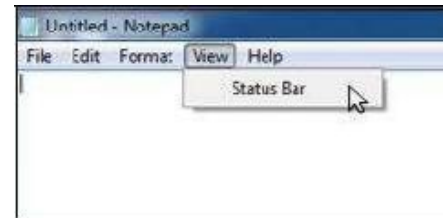
The **Edit** menu helps us edit text. It provides various options that are Undo, Cut, Copy, Paste Delete, Find, Find Next, Replace, Go to, Select All, Time/Date.



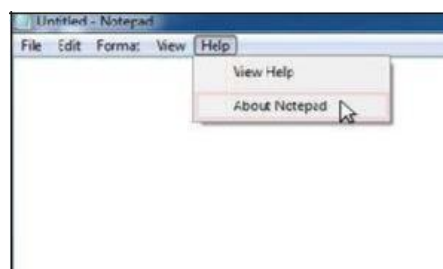
The **Format** menu helps you format all the text in the document; it has two options; Word wrap and Font.



The **View** menu helps you view the status bar at the bottom of the notepad window.



The **Help** menu provides two options View Help and About Notepad.



How to use a Notepad?

The steps to create a text file using Notepad are as follows:

Step 1: Open the Notepad window.

Step 2: Write text.

Step 3: Select the text you want to copy.

Step 4: Click the edit menu and select copy.

Step 5: Put the cursor at the place where you want to paste the copied text.

Step 6: Click on the edit menu and select paste.

Step 7: Click on the edit menu and select Time/Date.

Step 8: Click on the format menu and select Font.

Step 9: Select the desired font type, style and size in the font dialog box.

Step 10: Click on OK to save changes and close the font dialog box.

Step 11: Click on the file menu and select save.

Step 12: Select the desired location and folder, write the file name in the file name combo box.

Step 13: Click save to save the file.

How to insert current date and time?

To insert date and time click on the edit menu and select Time/Date. You can now apply the desired font. To set the font, click on the format menu and select font. The font dialog box appears; select the desired font type, style and size in the font dialog box. Click OK to save the changes and close the font dialog box. Now to save this file, click on the file menu and select save. The 'Save As' dialog box appears. Now, select the desired location and folder and write the file name in the file name combo box. Now click Save to save the file.

EXERCISE 8

Which is not the menu item of menu bar?

- File
- Edit
- Format
- Text editor

Calculator

Calculator helps you to perform simple calculations such as addition, subtraction, multiplication and division. You can also use the calculator to do programming, scientific and statistical calculations.



To run a calculator click on the start button, point the mouse to all programs click on accessories click calculator. The

calculator window appears, it has a menu bar that contains various menu items such as view edit and help.

The view menu helps you select the mode of the calculator that you want to use. These modes are standard, scientific, programmer and statistics. The view menu also provides the history option that you can select to keep track of all the calculations that calculator performs in a session. This option is available in standard and scientific modes only. If you select the digit grouping option it inserts a comma after every third digit on the calculator

screen. The view menu also provides various options to select the type of calculation that you want to do.

The edit menu helps you copy digits from the calculator screen and allows you to paste numbers and digits from the clipboard.

The help menu helps you get any help if you need while working with calculator. Click on the calculator keypad to input numbers and operations alternatively you can use computers keyboard to input numbers and operations. The result is displayed on the calculator screen. It as easy as using a physical calculator.

EXERCISE 9

Which option in a Calculator inserts a comma after every third digit on a calculator screen?

- Digit Grouping
- Statistic
- Unit Conversion
- Date Calculation

MODULE 2 - FINAL ASSESSMENT

1. Which is the correct step to open paint?

- Start >All Programs >Accessories
- All Programs > Start > Control Panel
- Start > Control > Accessories

2. In paint, options like open, New, Print and save as is found on:

- Paint Button
- Quick Access Toolbar
- Ribbon

3. Operating System can be divided into:

- Character User Interface
- Graphical User Interface
- Both

4. System Clock is found at?

- Taskbar
- Control Panel
- Desktop

5. To enter time/Date, go to:

- Edit Menu > Time / Date
- Format > Time /Date
- Edit > Date / Time

6. Computer Calculator can perform:

- Scientific Calculation
- Statistical Calculation
- Both of These

7. Which option in Calculator keeps the track of all the calculations that are performed in a session?

- Digit Grouping
- History
- Basic

8. Which option is not true for Paint?

- We can set Paint picture as a Desktop Background
- We can also perform simple calculation by using Paint
- We can also copy and paste Paint picture into any other document

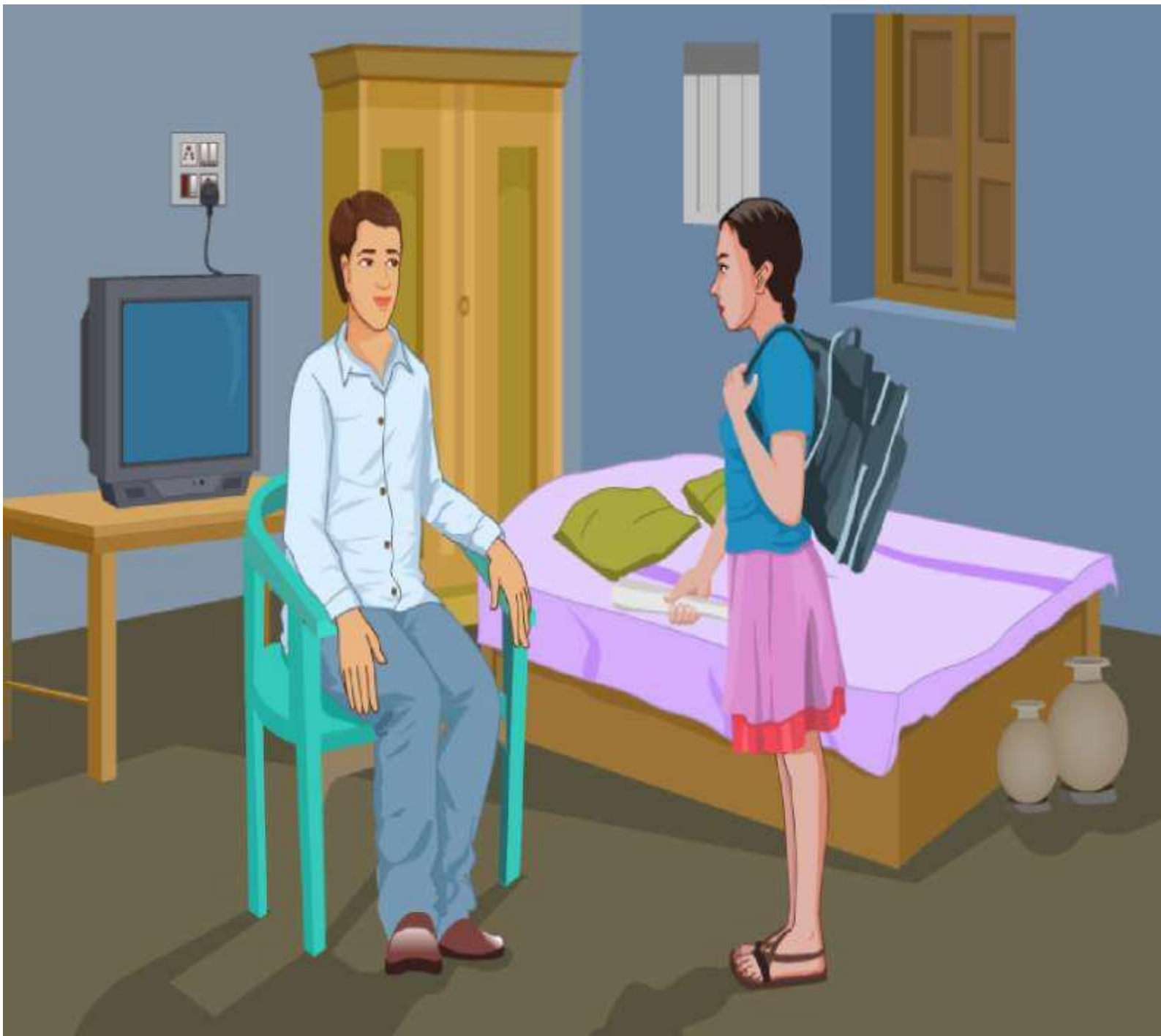
9. To change wallpaper of the Desktop you will use:

- Changing screen saver option
- Changing Desktop Background option
- Changing Theme

10. In Paint, options like Line, Curve and Circle are found on:

- Tools
- Shapes
- Clipboard

3. USING THE WORD PROCESSING PROGRAM



LEARNING OUTCOMES

By the end of this module, you should be able to:

- Create and Identify MS -Word as a word processor
- Create and Manage Documents

LESSON PLAN

3.1 Getting started with Microsoft Word

3.2 Creating and Managing Documents

3.1 GETTING STARTED WITH MICROSOFT WORD

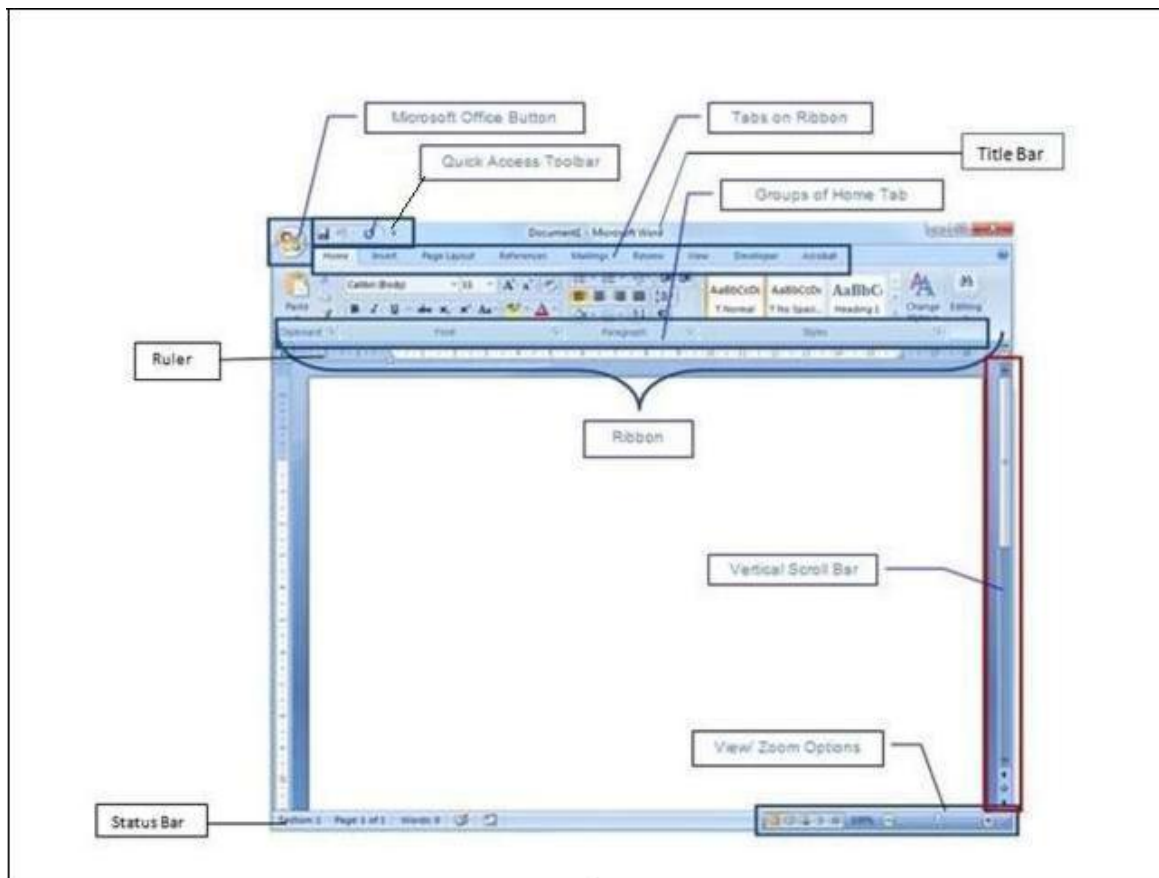
Introduction

The Microsoft Office Suite has one of the most used applications such as MS Word, MS Excel, MS Power Point and MS Access. Microsoft Word, MS Word or Word is a **Word Processing Programme** which is used to increase the readability of any text. It also helps in sharing data and documents, use communication tools, access the internet and edit, format, print or publish documents. By using MS Word you can create various kinds of documents such as letters, memos and reports. You can apply various font styles, font colour, insert pictures, graphs and tables into a document.

How to run MS Word

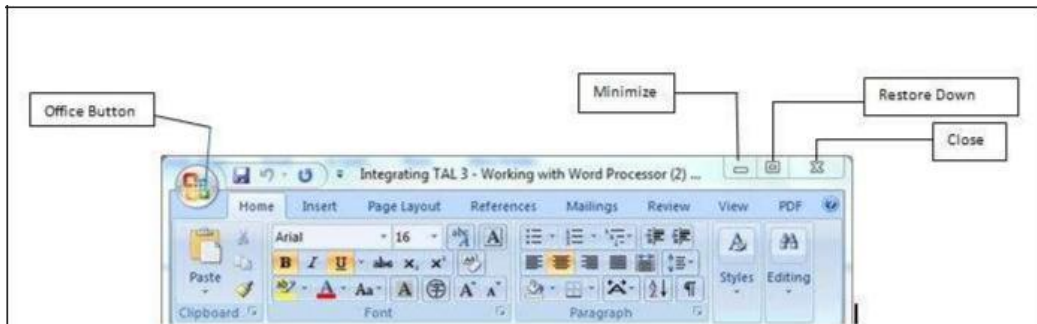
1. To run MS word click on the start button
2. Point the mouse on All Programs
3. Click on Microsoft Office
4. Click Microsoft Office Word 2007

MS Word is divided into various parts, which are: Title Bar, Quick Access Toolbar, Ribbon, Ruler, Workspace or Text area, Scroll Bar and Status Bar.



Details about the various components of MS Word

- **The Title Bar:** The Title Bar is the top most section of the Word window. It displays the name of the current document and the program name. The size of the document can be altered by double clicking on the title bar. The title bar contains the Office button, Minimize, Restore Down or Maximize and Close buttons.



- The **Office button** displays the list of recent documents. You can click on the name of the document from the list to access it quickly. The Office button also provides various options like Create, Open, Save, Print and Publish a document.
 - The **Minimize button** minimizes or reduces the document window to a task bar icon. By clicking on the icon, you can restore the window to its previous position.
 - **Restore Down button** restores the document window to its original size before full screen. Maximize button helps to maximize the document window to full screen.
 - **Close button** helps you close the document window and exit the word application.
- **Quick Access Toolbar:** Helps you to quickly access frequently used tools such as Save, Redo and Undo. You can also customize the Quick Access Toolbar by selecting the items from the drop down list. By default, it is placed above the Ribbon. You can customize its location by selecting 'Show below the ribbon' option from the drop down list. You can also add items to the quick access toolbar. Right click on any item in the Office Button or the Ribbon and click on 'Add to Quick Access Toolbar' and a shortcut will be added.



- **The Ribbon:** Various menu items are arranged at the top of the ribbon as tabs like Home, Insert, Page Layout, References and so on. Clicking the tab displays all related menu options in the various groups.
- **Ruler:** The ruler helps you measure and line up objects in the document quickly. If the ruler is not visible click the view tab and choose the ruler option from its menu.
- **Workspace or Text Area:** The wide white space in the middle of the document is the workspace or text area which you can use to create a document. The horizontal and vertical scroll bars help you move up, down and across your document.

- **The Status Bar** is located at the bottom of the document window. It displays the information such as the current page and number of words in the currently active document. You can customize the information that you want to display in the status bar.

EXERCISE 1

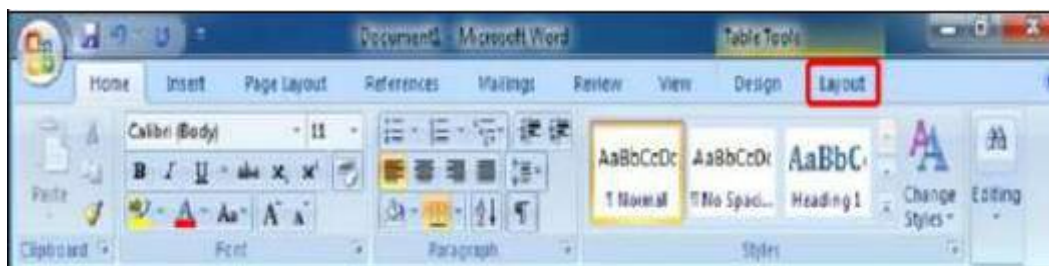
1. Which of the following is not an application of Microsoft Office?
a. MS Word B. Notepad c. MS PowerPoint d. MS Excel

2. Identify the part of the document window that displays the name of the currently active document.
a. Ribbon b. Ruler bar c. Scroll bar d. Title bar

3. Which of the following part of the document window helps you move across the document?
a. Ruler B. Ribbon c. Scroll bar d. Title bar

Learning more about the Ribbon

The ribbon consists of various menu tabs that help you access program features. These tabs are Home, Insert, Page Layout, References, Mailings, Review, View, Design and Layout.



- The **Home** tab helps you format text and paragraphs. It contains menu options in various groups. These groups are Clipboard, Font, Paragraph, Styles and Editing.
 - The **Clipboard** menu contains the cut, copy, paste and format painter options. The cut, copy and paste options help you to move or copy any selected text in a document. The format painter helps you copy the format and apply it to another.
 - The **Font** group helps change the font face, size, type and colour of the selected text.
 - The **Paragraph** group provides the option to align and indent text in a paragraph. It also helps you apply list, bullet and numbering to a paragraph and sort the selected text and numerical data.
 - The **Styles** group helps you apply various styles such as normal, no spacing, heading 1, heading 2, title and sub-title to the selected text in the document.
 - The **Editing** tab helps you find and search in the document. You can also use the replace option to replace a text and its various occurrences in the document
- The **Insert** tab helps you insert Pages, Tables, Illustrations, Links, Header & Footer, Text and Symbols into the document.

- The **Page** layout tab provides the option to apply themes to the document like set up a page, apply page background, apply paragraph indentation and spacing and arrange various objects in the document.
- The **References** tab helps you create the Table of Contents, insert Footnotes, Citations and Bibliography, Captions, Index and Table of Authorities.
- The **Mailings** tab helps you form document or letter where each copy is intended to be sent to multiple recipients. The various groups in the tab helps you create labels and envelop, include recipients to your document, write and insert fields such address and greeting line and preview the results and check for errors before finalizing. Mail merge is an important feature in MS Word, wherein you can write a customized flyer or letter to all your friends in one shot.
- The **Review** tab provides various options for proofing the document by inserting, deleting and navigating through the contents of the document, tracking changes in the document, viewing and navigating through the changes in the document, comparing multiple versions of the document and protecting the document.
- The **View** tab helps in working with the views of the document by helping in choosing the option of showing or hiding the ruler, grid lines, message bar, document map and thumb nails. The zoom group helps you view the document in a particular size. The window groups helps you arrange the various document windows open in the application.
- The **Design** tab helps you apply various styles to the table in the document.
- The **Layout** tab helps work with table. It helps you view properties of the table and work with rows and columns of the table.

EXERCISE 2

1. What does the Ribbon consist of?

- a. Tabs b. Page Number c. Name of the document d. Customize quick access tool bar

2. Which of the following menu tabs helps you access the page background features like Watermark, Page borders and Margins?

- a. Home tab b. Page layout tab c. Insert tab d. Review tab

3.2 CREATING AND MANAGING DOCUMENTS

Creating and Saving a Document

Steps to Create and Save a new document:

Step 1: Click on the Start button

Step 2: Point the mouse to All Programs

Step 3: Click Microsoft Office

Step 4: Click Microsoft Office Word 2007

Step 5: Click on the Office button and select Save

Step 6: Choose the location and folder

Step 7: Write file name in the File name combo box

Step 8: Select the type of document from the Save As type dropdown list

Step 9: Click Save.

EXERCISE 3

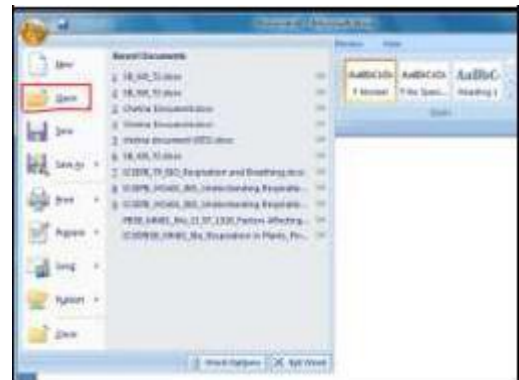
Identify the correct set of steps to create a new document:

- a. Click start – All Programs – Microsoft Office- Microsoft Office 2007
- b. Click Start – All Programs – Microsoft Office – Microsoft Word 2007
- c. Click Office Button- Open- Click on the display link – New d. Click Office button – Save

Opening an Existing Document

You may be required to re-open a saved document for adding some text or editing some part of it. The office button provides an option, 'Open', to open an existing document.

In the Open dialogue box, you can explore the saved document and click Open to open the document. The open drop down menu provides options to open the document as Read only, as a copy to open and repair. By default all documents are saved in the 'My Document' folder. Therefore, open option by default opens 'My Document' folder. To open the files saved in another folder, you need to browse through the folder in the open dialogue box. You can also open non word document using the open option. In the Open dialogue box the drop down menu box to the right of the dialogue box allows you to select the type of document you want to open. The drop down menu lists the type of menu as displayed on the screen.



The steps to open an existing document:

Step 1: Click the Office button

Step 2: Select Open to display the Open dialogue box

Step 3: Double click the drive in which the folder containing the document located

Step 4: Double click the folder to open it

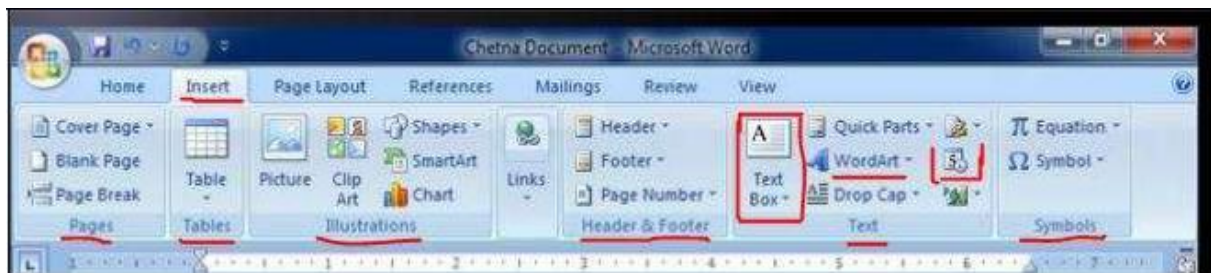
Step 5: Select the document that you want to open

Step 6: Click Open to open the selected document.

Editing Text in a Document

This section deals with how to Insert, Delete, Modify and Copy text in a word document. Before you start inserting any text, you can see that the cursor is blinking at the starting point of the document. This means that whatever you write in a new document, it starts from the location where the cursor is blinking and as you type the cursor moves forward. You press spacebar in the keyboard to put one space after a word or a character. When you reach at the end of the line, Word automatically helps wrap the text to the next line.

When you press the Enter key, the cursor moves to the next line. This allows you to write text in a new line. You can also insert pages, table, illustrations, links, header and footer, symbols and other objects like word art, text box and date and time using the insert menu of the ribbon.



Editing text in Document

You must move the cursor to a place where you have to make changes. The arrow keys in the keyboard help you to move around in a document.



Up arrow, Down arrow, Left arrow, Right arrow

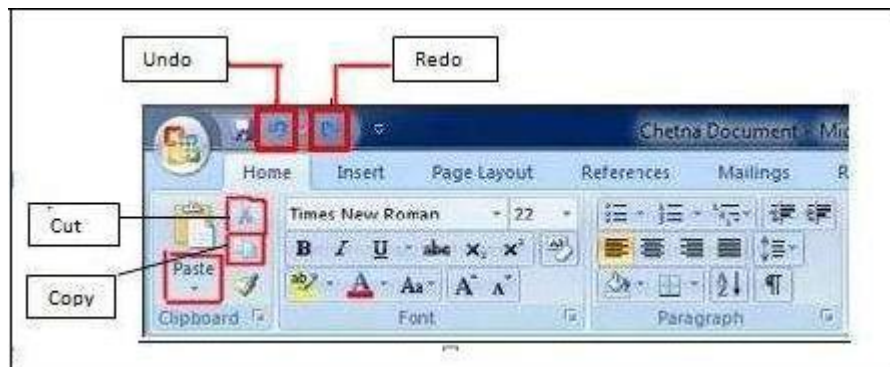
The various arrow keys and their function are given below:

Arrow Key(Short Cut keys)	Functions
Up arrow, Down arrow, Left arrow, Right arrow	Up arrow, Down arrow, Left arrow, Right arrow
Ctrl+Right arrow	Next word
Ctrl+Left arrow	Previous word
Home	Beginning of the line
End	End of the line
Ctrl+Home	Begging of the Document
Ctrl+End	End of Document
Ctrl+Page up	Previous page
Ctrl+Page Down	Next page

In order to edit a document, you can insert, delete, copy, cut and paste text. Word is usually in an insert mode as in type in text it is pushed to the right and down. To delete text, you need to press either the backspace or the delete key. The delete key removes the characters from its current cursor position. The backspace key moves one position from the current cursor position.



You can also Redo and Undo the modifications that you have done in the current document from the Quick Access Toolbar. The undo command helps reverse actions. This could be done by pressing the CTRL Z key together. The redo command helps reverse the last undo. Therefore, if you want to restore the last deleted text by undo command, the redo command will again delete it. To redo a change, you need to click the redo button in Quick Access Toolbar or press the CTRL Y keys together. While editing a document you can also copy or cut text, line or paragraph and paste it to other place in the document. To copy or cut text you must first select it (You can select text using keyboard, mouse or both).



Cut & Paste: To move a text in a document, click on the text and click on the cut and move the cursor where you want the text to be pasted. Click on the paste option to paste the text.

Copy & Paste: To copy texts, select the text to be copied, click on the copy option on the home menu of the ribbon. Place the cursor to the point where you want to paste the copied text. Click on the paste option, the copied text gets pasted.

EXERCISE 4

1. Which of the following key helps put one space after a word or a character?
 - a. backspace
 - b. CTRL
 - c. Spacebar
 - d. Right arrow

2. Which of the following keys help you navigate to the next word in a document?
 - a. Home + Right arrow
 - b. Ctrl + Right arrow
 - c. Alt + Right Arrow
 - d. Shift + Right arrow

3. Which of the following key combination helps undo the task?
 - a. Ctrl+Y
 - b. Ctrl+U
 - c. Ctrl+Z
 - d. Ctrl+A

Formatting Text in a Document

Formatting text includes selecting fonts, changing case, aligning text, indenting paragraphs and applying bullets and numbers.

Font is the style or manner in which the text is displayed in a word document. A font has face, style, size & colour as its attributes. You can



select or change these attributes to change the appearance of text in a document. You can select a Font face from the font face drop down list. You can also select the size of the font by using the Font size drop down menu. You can change the font style of the selected text to Bold, Italics and Underline by clicking on the font style toolbar buttons. You can also change the colour of the selected text by selecting a colour from the font colour drop down menu.

Changing Case: To change a case of the text first you need to select the text and then click on the change case drop down menu to select a case option. The drop down menu provides various case options as displayed on the screen:

- Sentence Case: Capitalizes only the first letter in the selected sentences.
- Lower Case: Corrects all the select text to lowercase letters.
- Upper Case: Converts all the selected text to uppercase letters.
- Title Case: Converts first characters of each word to uppercase letters.
- Toggle Case: Changes uppercase to lowercase and lowercase to upper case in all the selected text.



Alignment helps you to align text in a document. In a word document you can left align, right align, centre align and justify the text to enhance the readability.



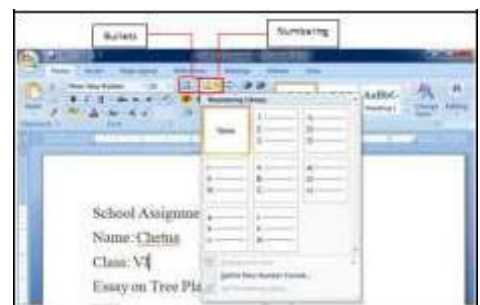
Left align, Right align and Center align

Indents: You can indent paragraphs to make the text more readable in a document. **Indents** increase the wide space from the margin and decrease the text area for specific paragraphs. You can use these to increase and decrease indents in the text of a paragraph.



Left indent and right indent

Bullets & Numbering: You can make bulleted or numbered text in the document. You can use Format Painter on the Standard toolbar to apply text formatting and some basic graphics formatting, such as borders and fills.



EXERCISE 5

Which of the following group provides option to align text to the right of the margin?

- Styles
- Paragraphs
- Font
- Clipboard

Working with Tables

Tables help us to manage information in various kinds of documents such as forms, scripts and reports. Tables are made up of rows and columns. An intersection of rows and columns is called a cell that can contain data.

How to create or draw tables in MS Word

- Place the cursor at the insertion point where you want to create the table
- Click on the insert menu on the ribbon
- Select the table drop down menu
- Select or write the desired number of rows and columns in the table
- Click OK and close the insert table dialogue box

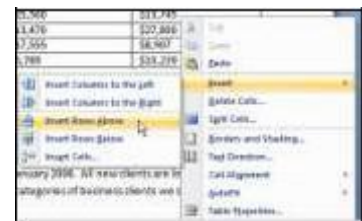


How to change the width and height of a cell

Place the cursor on the cell, row or column and right click on it; a popup menu appears. Click on the table's property option. The table properties dialogue box appears.

How to insert a Row or Column

- Place the insertion point in a row below the location where you wish to add a row or column.
- Right-click the mouse. A menu appears
- Select insert row or column



How to delete a row or a column

- Select the row or column to be deleted
- Right click you mouse and a menu appears
- Select Delete Column or Delete Rows

Utility Options

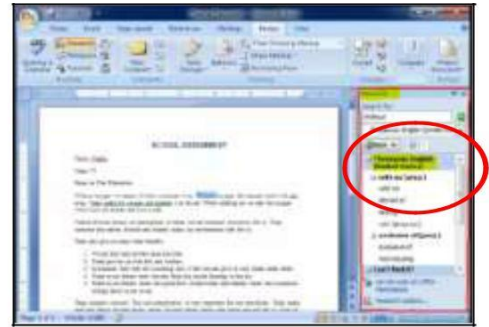
MS Word also provides various utility options such as Proofing, Comments, Tracking, etc. to help us review and track changes made in a document through the Review menu in the ribbon.

- The **Proofing** group has options like - Spelling & Grammar, Thesaurus, Translate, etc. that help us proof text in a document.



- **Spelling & Grammar:** Spelling and Grammar errors are displayed by a red and green underline, respectively. To spell check the entire document or a part of the text, you need to click on this option.

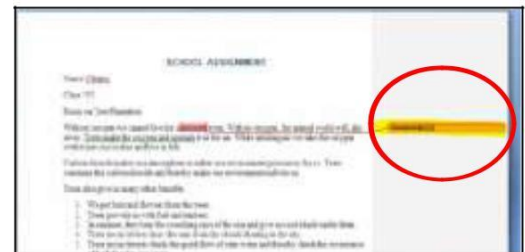
- **Thesaurus:** This is used to find similar meaning of a word. You just need to select the word and then click on Thesaurus. A research task pane appears on the right side of the window listing words of similar meanings. Point the mouse to the word and select insert from the drop down menu to replace the selected word with the suggested word.



- **Comments:** You can also add your comments in a document. To add a comment, place the cursor at the point where the comment has to be inserted or select the text and then click on New Comment in the Comments group of the review menu. A comment text box appears to the right, wherein you can type your comments.



- **Tracking:** By selecting the Track Changes option in the Tracking group, you can track all changes



made to the document including insertions, deletions and formatting changes. The changes made in Track Change mode helps you to identify the changes made to the document. You can also accept or reject changes using the options available in the **Changes** group.

4. USING SPREADSHEET



LEARNING OUTCOMES

By the end of this module, you should be able to:

- Learn and Identify MS Excel as an Electronic Spreadsheet
- Confidently use and work on Excel Worksheets

LESSON PLAN

4.1 Getting started with MS Excel

4.2 Working with Worksheets

4.1 GETTING STARTED WITH MS EXCEL

Introduction

MS Excel is an electronic spreadsheet which simulates a paper worksheet that you use in your accounting and data managing tasks. MS Excel provides various features such as fast calculations, what-if analysis, graphs and charts and automatic update of calculations. It has a very powerful and flexible graphical presentation tool called Graphs or Charts. Large and complicated data can be presented through graphs and charts for quick analysis of a situation. By using this program, you can create, store, calculate simple, large and complex data or budgets and also create various accounting reports such as cash flow statement, etc.

Running and Starting an Excel Program

1. Click on the Start button
2. Point the mouse to All Programs
3. Click on Microsoft Office
4. Click on Microsoft Excel 2007

The window that opens up is the workbook where MS Excel stores all its data. It is a collection of various worksheets each of which can store data. A worksheet in excel is made up of rows and columns, with each workbook containing 65,536 rows and 256 columns.



By default a new workbook has three worksheets - Sheet 1, Sheet 2 and Sheet 3 – which appear at the bottom of the workbook.

Renaming a Worksheet

1. Double click the Sheet tab that you want to rename
2. The existing name in the Sheet tab gets selected
3. Write the new name that replaces the existing name Alternatively,
 1. Right click on the sheet tab that you want to rename
 2. Select rename from the short cut pop up
 3. Write the new name that replaces the existing name in the pop up

Adding Worksheets in a Workbook

MS Excel allows you to either add a new worksheet or delete an existing worksheet either at the end or before and after an existing worksheet.

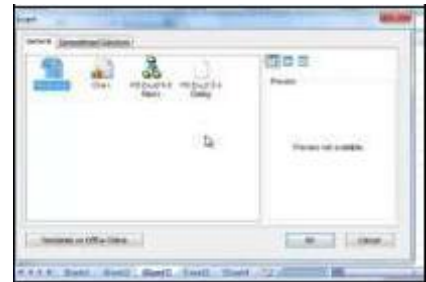
- To insert a new worksheet at the end of an existing worksheet, click on the Insert Worksheet tab at the end of the Sheet tabs. A new worksheet with its default name is inserted at the end of existing worksheets.



- To insert a new worksheet before an existing worksheet, select the worksheet and click Insert in the Cells group of the Home tab. Click Insert Sheet and a new sheet with its default name is inserted.

Alternatively,

- You can also right click on an existing sheet tab and then click Insert.
- An Insert dialogue box appears, click on Worksheet and then click OK to insert a new Worksheet.



EXERCISE 1

How many Rows and Columns does a worksheet contain?

- 63556 rows and 246 columns
- 63556 rows and 256 columns
- 65536 rows and 256 columns
- 63556 rows and 246 columns

Creating and Saving a New Workbook

Step 1: Click on the Start button

Step 2: Point the mouse to All Programs

Step 3: Click Microsoft Office

Step 4: Click Microsoft Office Excel 2007

Step 5: Click on the Insert Worksheet tab at the end of the sheet tabs

Step 6: Double click the Sheet 1 tab

Step 7: Type the desired name for Sheet 1

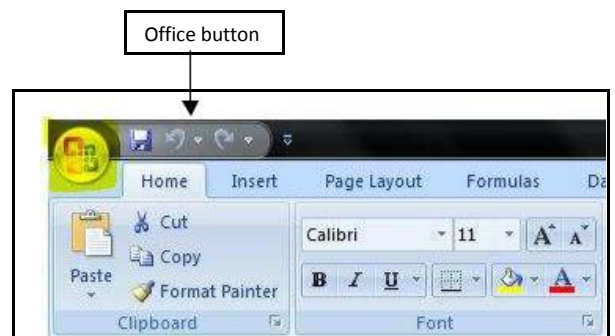
Step 8: Click on the Office button and select Save

Step 9: Choose the location and folder

Step 10: Write the file name in the File name combo box

Step 11: Select the type of the workbook from the Save As type dropdown list.

Step 12: Click Save.



Printing of Workbook in MS Excel

- Click on the Office button
- Point the mouse to print and select Print Preview
- Select Print Preview to have a print preview. The preview option helps us to make changes to the worksheet before printing. We can also change or modify margins.



Printing a particular section of the Workbook

- Select the area to be printed and click on the Office button
- Point the mouse to Print and click the Print option. The dialogue box appears; click the Selection button in the 'Print what' section.
- Click OK to print the selected area or range.



EXERCISE 2

We can insert a new worksheet only at the end of the worksheet:

- a. True
- b. False

4.2 WORKING WITH WORKSHEETS

Worksheet Cells

Each worksheet is made up of rows and columns. An intersection of rows and columns is called a Cell and these are the cells that contain data. For easy reference each cell is given a name from its intersection such as the cell in column A and row 5 is called A5 and is displayed in the name box below the ribbon. A group of adjacent cells is called a range. For example, range of cells from A1 to A5 is denoted by A1:A5.

Entering values or data in a cell

Click on a cell to make it active, you can see a rectangular boundary over the cell. This indicates that the cell is active; then you can enter data into it. This can be numbers, text, date or time.



To enter text or number in a cell:

1. Click on the cell
2. Type the number or text that you want to enter
3. Press Enter or Tab

To enter a date in a cell:

1. Click on the cell
2. Enter a date using a slash mark (/) or a hyphen (-) to separate the parts of a date
3. Press enter or tab

For example: To enter the time that is based on a 12 hr clock enter the time followed by a space and then type A or P by default MS Excel enters the time as AM or PM.

To enter the same data in several cells:

1. Select the cells into which you want to enter the same data
2. Type the data in the active cell
3. Press CTRL+ Enter

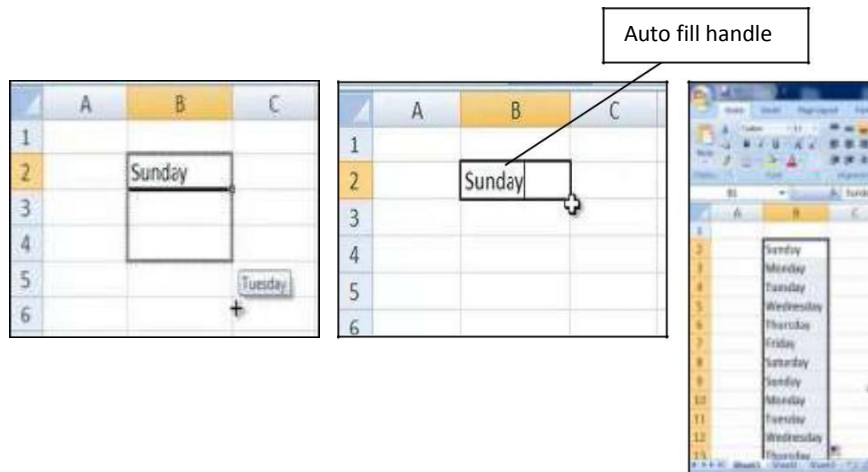
Creating Text, Number and Date Series

To type a series of text, number or time, MS Excel offers auto fill features that you can use to automatically fill cells with data that follow a pattern or data from a series. A series can be a sequence of days or months.

Steps to create a series of text entries of days of a week:

1. Enter the first value i.e. first day of the series at the beginning of the series

2. Drag the auto fill handle across the cell you want to fill



Similarly, a series of month names as well as data could be filled in the cells.

EXERCISE 3

Through which of the following ways you can enter the same data into several cells?

- a. Using ctrl + Enter
- b. Using the fill handle
- c. None of the above
- d. Either of the options a or b

Editing Worksheet Data

The editing may include clearing of cell data and moving data from one location to the other. You can edit data by using the formula bar or editing it in the cell itself.

To edit the cell content using the formula bar:

- 1. Select the cell to be edited.
- 2. Click on the formula bar present below the ribbon
- 3. Edit the cell content as required and press enter



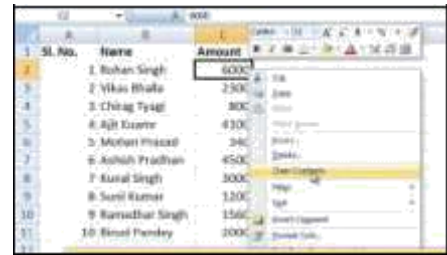
To edit the cell content in the cell itself:

- 1. Select the cell to be edited
- 2. Press the F2 function key
- 3. Edit the content by moving the cursor to the editing point
- 4. Press enter or tab

Note: Clearing a cell is not the same as deleting a cell. When you delete a cell, other cells to the right or bottom shift. Clearing a cell, on the other hand, does not cause the other cells to shift.

To clear the cell using short cut menu:

1. Select the cell to be cleared
2. Right click on the selected cell
3. Select Clear Contents option from the shortcut menu.



You can also clear the cell using the delete key. Select the cell to be cleared and press the delete key. The delete key clears all the contents from the cell but does not change cell formatting.

To clear the cell using the Menu bar:

1. Select the cell to be cleared
2. Click on the clear drop down menu in the Editing group of the Home tab.
3. Select Clear Contents from the menu



At times you need to create multiple copies of worksheet data. You can do this by using copy and paste options in MS Excel. You can copy the contents of the cells and paste in many cells, thus saving the effort of typing again and again.

How to copy and paste the cell contents using the menu bar:

1. Select the cells having the content to be copied
2. Click on the copy option in the clipboard group of home tab
3. Select the cell(s) in which you want to paste a copy of the data
4. Four click on the paste option in the clipboard group of home tab
5. Select paste to paste the copied contents in the selected cells(s).



To copy and paste cell contents using Shortcut menu:

1. Select the cell(s) having the contents to be copied
2. Right click on the selected cell(s)
3. Select copy from the short cut menu
4. Select cell(s) in which you want to paste a copy of the data
5. Right click on the selected cell(s)
6. Select paste from the short cut menu



Formula and Functions

MS Excel provides Formulas that help perform calculations on values in the worksheet.

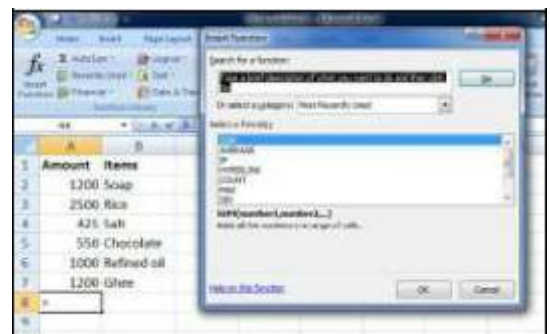
Formulas are equations that start with an (=) sign. For example = 5+3 formula gives sum of 8.

A Formula can contain any or all of the following:

A formula can contain:

- ▶ Functions
- ▶ References
- ▶ Operators
- ▶ Constants

A **Function** is a prewritten formula that takes a value or values, performs an operation and returns a value/values. We use function to simplify and shorten formulas in the worksheet. The Insert Function option in the function library option helps us to insert various functions and formulas. These functions are SUM, Average, Max and Count as displayed on the screen.

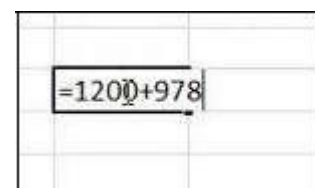


An **Operator** is a sign or symbol that specifies the type of calculation to perform within an expression. The different types of operators are – Mathematical, Comparison, Logical and Reference.

Constant is a value in a formula that is not calculated and, therefore, does not change.

How to create a simple formula with constants and calculation operators:

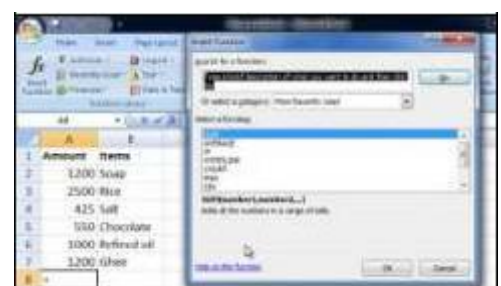
1. Click the cell in which you want to enter the formula
2. Type =
3. Enter the formula
4. Press enter. The result of the formula is displayed in the cell



If you have to calculate the sum of all the numbers in column A, then use the formula with the function SUM.

How to create a formula with the SUM Function:

1. Click the cell in which you want to enter the formula
2. Click on the Insert Function option. Alternatively, you can use the insert function icon on the formula bar
3. Select the SUM function
4. Click OK. A Function Argument dialogue box will



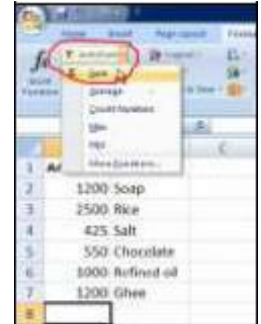
appear

5. Select the cell references as an argument in number one argument box. On the worksheet, drag the cursor down to the numbers to be added
6. Click OK.



How to use the AutoSUM option:

1. Click the cell in which you want to use the formula
2. Click on the AutoSum drop down menu
3. Select the function SUM
4. Select the cell ranges
5. Press Enter.



EXERCISE 5

Identify the correct formula for finding the sum values in the cells from A5 to A8.

- a. =Sum (C6:C8)
- b. =ADD (C6:C8)
- c. =Sum (C6; C8)
- d. =ADD (C6; C8)

Using Charts

MS Excel allows you to represent data in a more eye catching way by using charts or graphs. Creating a chart in MS Excel is quick and easy. It provides a variety of chart types that you can choose from when you create a chart.

Creating a Chart in MS Excel

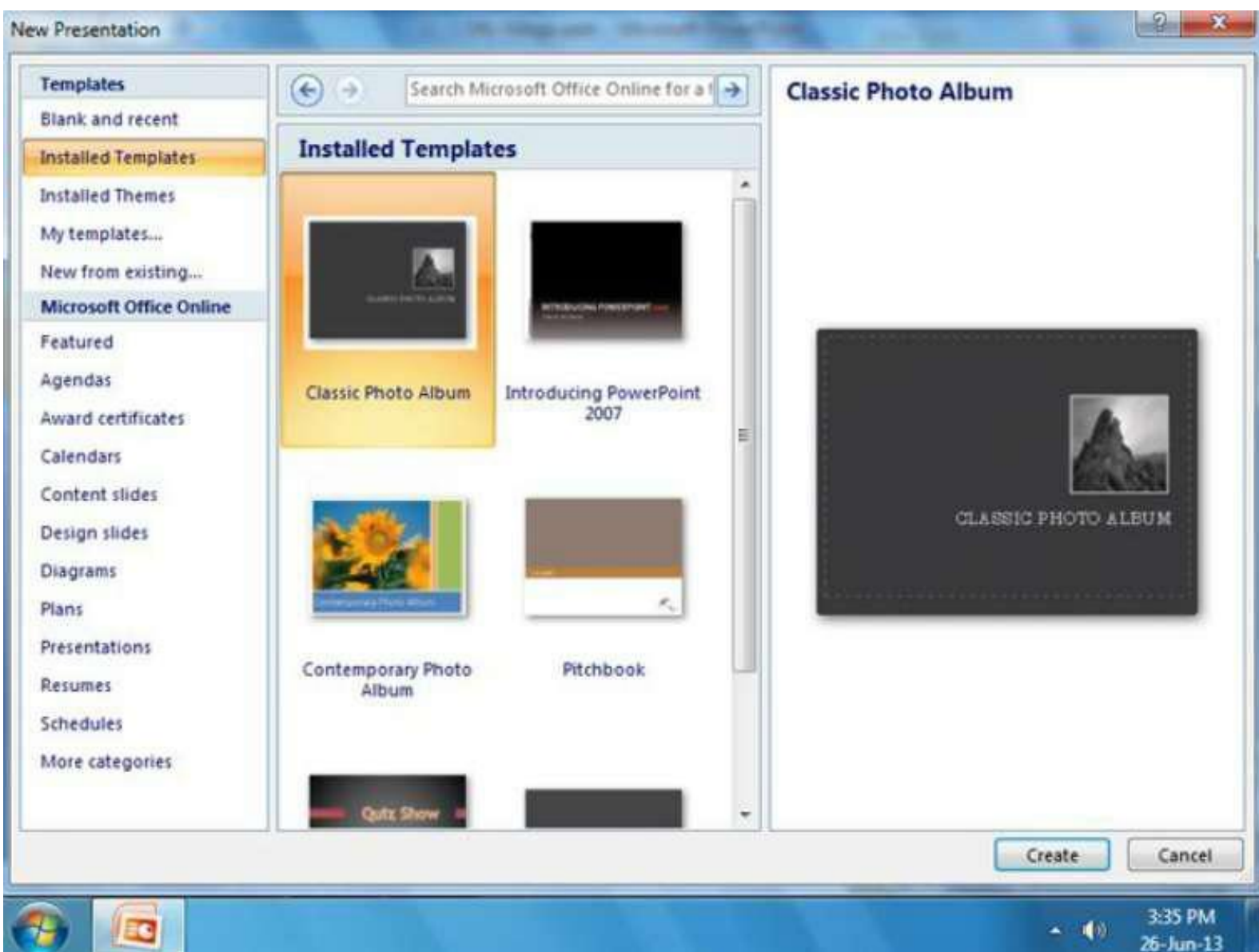
1. Create the data in the worksheet that you want to represent in the chart
2. Select the cell that contains the data that you want to use for the chart
3. Click on the Insert tab
4. Click on the chart type option in the charts group
5. Select a chart type from the displayed list



A chart is inserted in the worksheet as an embedded chart. When you create a chart the design, layout and format tabs are displayed in the ribbon. The various options in these tabs allow you to modify the chart. The layout tab allows you change the display of the chart elements such as chart titles and data labels, use drawing tools or add pictures or texts to the chart. The format tab helps you to fill colour and change line styles or apply special effects to the chart.



5. MAKING SMALL PRESENTATIONS



LEARNING OUTCOMES

By the end of this module, you should be able to:

- Explain the benefits and features of PowerPoint
- Use PowerPoint to prepare and present slides

LESSON PLAN

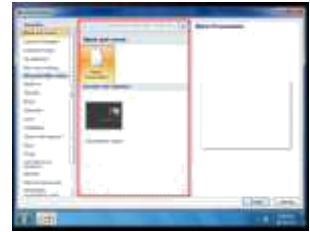
5.1 Getting started with MS PowerPoint

5.2 Presentation of Slides

5.1 GETTING STARTED WITH MS POWERPOINT

PowerPoint Basics

PowerPoint is presentation software or programme. It is used to create onscreen presentations. It has texts, pictures, sound and animation. Using presentations, you can present information or data in a more interesting and eye catching way. It also offers various design elements like auto layout and presentation templates that you can use to make some interesting presentations. You can generate speaker's notes and audience handouts from your presentations. You can also organize presentation content with outlines.



How to run PowerPoint

1. Click on the start button
2. Point the mouse to All Programs
3. Click on Microsoft Office
4. Click Microsoft Office PowerPoint 2007



A presentation window has various parts common to other office applications such as MS Word and MS Excel with some tabs like Animation and Slide Show specific to PowerPoint. The presentation area is divided into 3 sections:

- 1) The default or the normal view of the presentation.
- 2) The panel to the left displays list of slides and outline.
- 3) The panel at the bottom has text area where you can write notes that can be added to the slide.

EXERCISE 1

A PowerPoint presentation can contain:

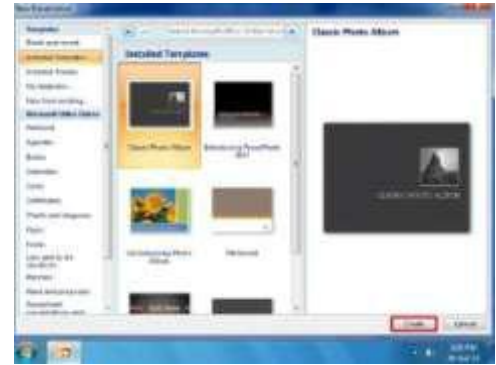
- a. Image
- b. Text
- c. Sound
- d. All of the above

Creating a New Presentation Using a Template

To create a presentation using a template, click on the Office button and select the New option. The new presentation dialogue box appears which is divided into 3 sections:

- a) The left most sections lists the various types of templates.
- b) The middle sections lists and displays all the available option of the selected type.
- c) The third and the right most provide the preview of the template.

Select a template from the new template dialogue box which creates a default presentation that does not contain any style or colour. The Installed Templates option lets you choose a template from the prebuilt templates of PowerPoint. A template provides layout and place holders for arranging text, images or other objects in a new presentation. Choosing a template from this option saves time and effort in creating layouts for new templates. Click the create option in the right hand corner of the dialogue box to create a template.



Creating and Saving a New Presentation

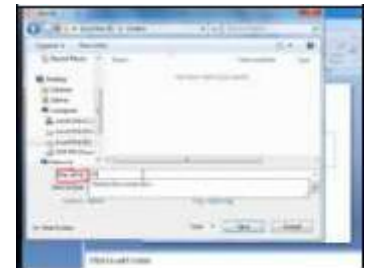
Step 1: Click on the Microsoft PowerPoint 2007. A new presentation as Presentation1 is created

Step 2: Click on the Office button and select Save. Save As a dialogue box appears

Step 3: Choose the location and folder in which you want to save the presentation

Step 4: Double click the folder to open it and write the desired file name for the presentation in the File Name combo box

Step 5: Click on Save to save the presentation and close the save as dialogue box.



EXERCISE 2

Which of the following statements are correct?

- a. We can generate speaker's notes from a PowerPoint presentation
- b. We can get audience handouts from a presentation
- c. We can organize the PowerPoint presentation content with outlines.
- d. All of the above

Editing Slides

A PowerPoint presentation contains many slides. A slide in a PowerPoint is like a page in MS Word or a worksheet in MS Excel. It is the slide which

contains text, images and other objects. A slide consists of a documentation area that is normally divided into title and subtitle parts. Both these parts contain place holders; a faint dotted line appears around each place holder. Click anywhere within the place holder to select it. When you type a text in the place holder it replaces the sample text with your text in the place holder. Also the faint dotted line around the place holder disappears.



After entering a text in the place holder, click on a blank area of the slide to exit the place holder.

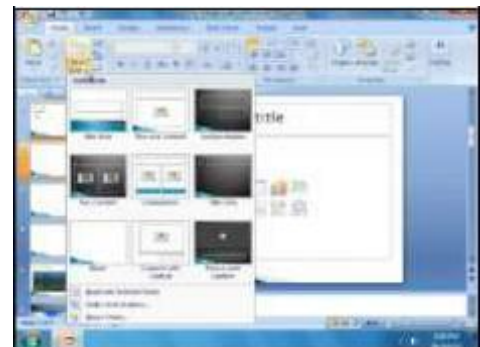
If you want to add Text Boxes in the slide, then click on the Insert tab and select the Text Box option. Now click on the slide where you want to insert the text box. A text box with insertion box appears; when you type in the text box the text is resized according to the text entered in it.

Use the enter key to type the text in the next line. Once you have entered text you can make changes to it anytime. To make changes to the text, click on the text area or the text box and select the text where changes are to be made and make the necessary changes such as cut, copy,

paste, format and align using the editing and formatting tabs available in Home tab on the ribbon.



To add a new slide, click on the Home tab, click on the New Slide tab in the slides group. If you want to add a new slide with a different layout, click on the drop down menu of the New Slide option. Various office themes are listed; you can choose any layout as per your requirement.



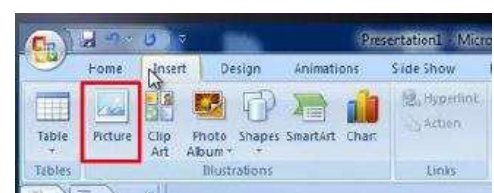
You can also delete a slide from your presentation. To delete a slide, select a slide to be deleted and click in the slides group of the Home tab. You can also press the delete key to delete a particular slide.

Preparation of Slides

In a presentation, you may be required to insert pictures, clipart images, tables and other objects. PowerPoint offers you to insert these in your presentation to make it more interesting to the viewers.

How to insert a Picture?

1. Select the slide in which you want to insert a picture
2. Click on the Insert tab
3. Click Picture in the illustrations group. An Insert picture dialogue box will appear

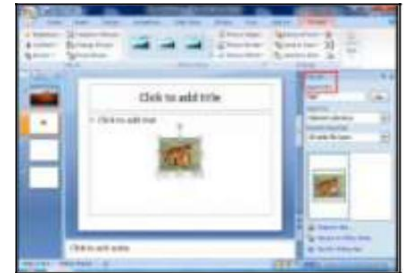
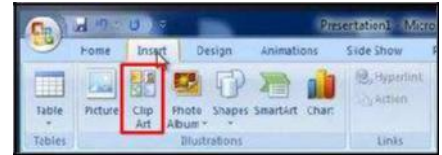


4. Browse through the folder that contains the pictures to be inserted
5. Select the picture and click the Insert drop down menu. The selected picture gets inserted into the slide.



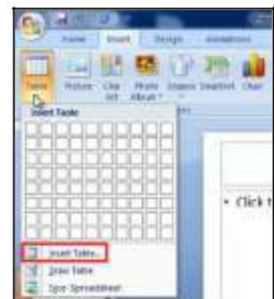
How add or insert Clipart picture?

1. Select the slide in which the clip art needs to be added
2. Click on the insert tab in the illustrations group
3. The clip art search dialogue box appears. Type a key word in the search for text box
4. Click on the go button next to the search for text box
5. Select a clip art in the clip art results. Click on the picture and the selected clip art picture is inserted into the slide.



How to insert a table in the presentation?

1. Select the slide in which you want to insert the table
2. Click on the Insert tab
3. Click the Table drop down menu
4. Select the Insert Table option
5. Select the Number of columns and rows. Click OK to insert the table. Add text to the table as desired
6. Click on any blank area outside the table area to deselect the table



Other objects such as bitmap images, graphs or charts and any other documents such as word documents and excel worksheets can also be inserted in the slides of the presentation.

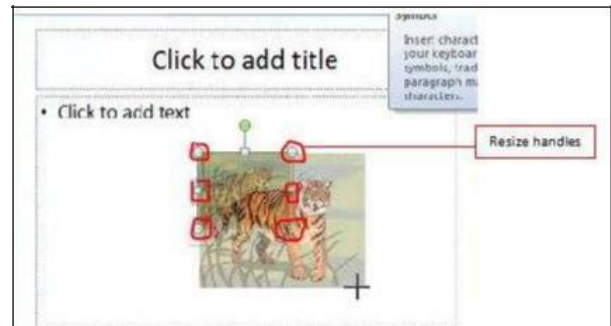
How to insert an object?

1. Select the slide in which the object needs to be inserted
2. Click on the Insert tab
3. Click the Object option
4. The Insert Object dialogue box appears
5. Select the 'Create New' option. This helps you to insert a new object such as a new or existing worksheet or word file into the slide
6. Click OK.



When you create a new worksheet, it is embedded as an object in your slide. All of the excel options and controls are displayed in the ribbon. You can use these options to enter or edit data directly in the new worksheet.

When you insert an object, be it a picture, object, table or clipart, you need to resize and scale it to the best fit in the slide. When you click on the object, the resize handles appear at the corner of the object. These handles enable to resize the objects in two dimensions. When you click on any of the resize handles you can change the height and width of the object by



dragging the handles. You can also scale an object, that is resize the object according to the percentage. You can also use the format or design option to modify the size and style of the object.

EXERCISE 3

Which of the following tabs helps insert a new slide in a presentation?

- a. Home
- b. Insert
- c. Slide Show
- d. Design

5.2 PRESENTATION OF SLIDES

Viewing a PowerPoint Presentation

The following are the various ways of viewing a PowerPoint presentation:

- **Normal View:** It is the default way of viewing PowerPoint presentation. Normal view is the main editing view, where you can write and design your presentations.
- **Slide Sorter:** Slide Sorter view provides you with a view of your slides in thumbnail form. This view makes it easy for you to sort and organize the sequence of your slides as you create your presentation, and then also as you prepare your presentation for printing.
- **Notes Page:** The Notes pane is located just below the Slide pane. You can type notes that apply to the current slide. Later, you can print your notes and refer them when you give



your presentation. You can also print notes to hand out to your audience or include the notes in a presentation that you send to the audience or post on a Web page.

- **Slide Show:** Slide Show view takes up the full computer screen, like an actual presentation. In this view, you see your presentation the way your audience will. You can see how your graphics, timings, movies, animated effects and transition effects will look during the actual presentation.



Presentation Setup and Printing

You can display a presentation as an On-screen slide show as 35 mm slide, as overheads or as printout you can also specify other set up properties such as page set up for notes.

A slide consists of a documentation area that is normally divided into title and subtitle bar. Both these parts contain place holders, a faint dotted line appears around each place holder.

How to specify presentation set up?

1. Click on the Design tab
2. Click the Page Setup option in the Page Setup group
3. Select an appropriate size for the slide size from the drop box
4. Select the orientation of the slides, notes, handouts & outlines from the orientation section
5. Click OK to apply the set up
6. After setting up your presentation you can print your slide or handouts.



How to print a presentation?

1. Click on the Office button
2. Point the mouse to the Print option
3. Select the Print option
4. The Print dialogue box appears
5. Select a printer from the Name drop down menu in the printer section
6. A printer's dialogue box appears. Select the print range from the print range section. You can print the entire presentation in one go or print the slides that you need.



You can also print specific slides by selecting the slides radio button and by entering the slide number in the text box next to it. Select an appropriate option from the Print



what drop down menu. It allows you to select slides, handouts, notes, pages or outline view to print

7. Click OK to print the desired part of the presentation.

EXERCISE 4

In which of the following view PowerPoint window is not visible?

- a. Normal
- b. Slide Show
- c. Slide Sorter
- d. Notes Page

Animations and Slide Show

Animations enhance your presentations visually. You can provide animation to your texts and visuals in the slide. You can also provide transitions to the slides. It helps you to select how the texts and visuals in the slide will appear in the presentation. It also helps in selecting the appearance and transition of the slides in the presentation.

How to set animation to the slides?

1. To set the animation to the text or visuals, you need to set the presentation in normal view.
2. Select the text or the visual that you want to animate
3. Click on the animations tab
4. Click on the animate drop down menu in the animations group
5. Select an animation from the list.



The animation is set for the selected text or visual. PowerPoint provides quick preview of the animated slide. To see the preview again click on the preview option in the animations tab.

How to set transition to the slides?

1. Select the slide
2. Click on the animations tab
3. Select a transition from the transitions to this slide group
4. Click on the transition sound drop down and select a sound from the list to provide sound effect to the transition of the slide
5. Click on the transition speed drop down menu and select the slide transition speed as slow, medium or fast



6. Check an option in the advance slide to set how the presentation moves to the next slide. You can set certain number of seconds after which the presentation moves to the next slide
7. Save the presentation to apply the changes

Once you have created a presentation and defined the animation and transition to it, you are ready to show it. Use slide show to display your presentation to the viewers.

How to set up a Slide Show?

1. Click on the slide show tab
2. Click on the set up slide show option in the set options
3. The set up show dialogue box appears
4. Click on one of the options in the show type options
5. Select either presented by a speaker (full screen) or browsed at a kiosk (full screen)



How to Automate a Slide Show?

1. Click on the slide show tab
2. Select the rehearse timing option in the set up group
3. The slide show begins with a rehearsal dialogue box
4. Click on the next arrow button when you are ready to move to the next slide. You can also navigate to the next slide using the arrow key on the keyboard
5. Repeat step 3 until all the slides are shown



If you want to run the slide show from a particular slide, click on, the from current slide option in the start slide show group in the slide show tab. To slide show either use the button at the right hand key on the presentation window or press f5 key. The slide show starts from the first slide.



EXERCISE 5

Which of the following tab allows you to set transition speed to the slides?

- a. Design
- b. Animations
- c. Slide Show
- d. Insert

6. INTRODUCTION TO THE INTERNET



LEARNING OUTCOMES

By the end of this module, you should be able to:

- Learn about Internet, its applications and connections
- Identify the types of Internet resources and use search engines

LESSON PLAN

6.1 Introduction to Internet

6.2 Internet Resources

6.1 INTRODUCTION TO INTERNET

The Internet is a global network of computer networks that connects millions of computers worldwide. The Internet allows people to communicate and exchange information or data with people all around the world. Through internet, you can send any information or messages to any part of the world within seconds. The internet also helps you to get latest information on any subject like railway reservation, weather, current affairs, etc. You can also use internet to buy and sell products, pay bills, and perform transactions with your bank accounts.

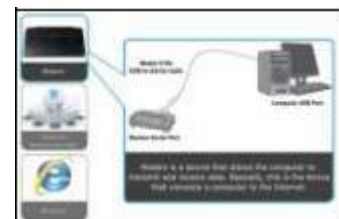
In addition, the Internet helps you:

- Exchange messages using e-Mail.
- Transfer information and files.
- Browse through information on any topic.
- Communicate in real-time with others connected to the Internet using chat.
- Search databases of government, individuals and organisations.
- Display information about your business and organisation.

Connecting to the Internet

To access Internet, there are 3 basic elements you need in your computer: Modem, Internet Service Provider and Browser.

a) **Modem:** It is the device that allows computers to transmit and receive data. This is the device which connects a computer to the Internet.



b) **Internet Service Provider (ISP):** The ISP is a company that provides access to the Internet.



c) **Browser:** It is the software which retrieves, presents and navigates information on the internet. Some popular

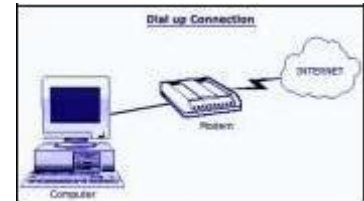


browsers are Internet Explorer (IE), Mozilla Firefox, Google Chrome and Safari.

You can connect to the Internet using cables and wireless technology. A computer that supports wireless technology has a wireless fidelity or a Wi Fi card. The Wi Fi card enables wireless communication between the computer and the network.

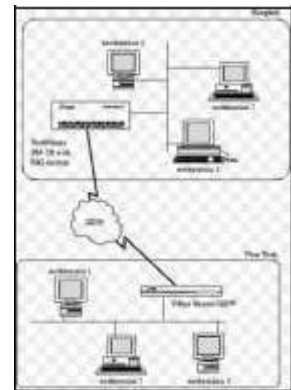
Four Types of Internet Connections

- a) **Dial up Connection:** Dial-up connection uses the telephone line to connect to the Internet. The computer uses the modem (often already on the computer) and connects the home phone line to it. A

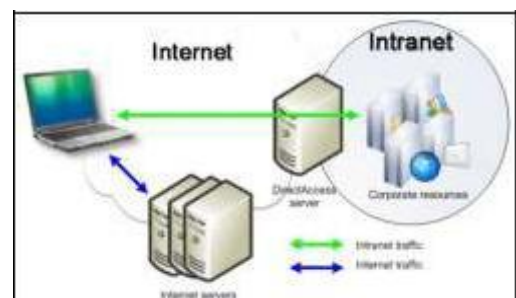


call will be made to the Internet service provider's modem and the link will be made to enable the access to the Internet. This was the first way to connect to the Internet.

- b) **Integrated Services Digital Network (ISDN):** ISDN is similar to dial up but offers connectivity through digital phone lines. It allows the usage of phone and internet at the same time. Much faster than dial-up and also more stable. You need an external modem to use this network. ISDN enables wide-bandwidth digital transmission over the public telephone network, which means more data can be sent at one time. A typical ISDN connection can support transfer rates of 64K or 128K of data per second.

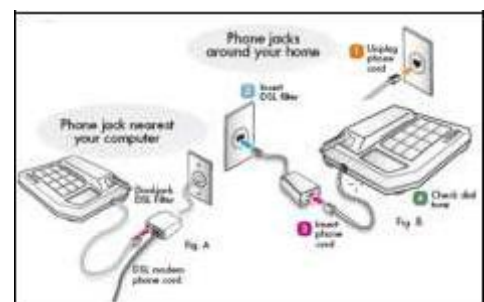


- c) **Direct Internet Access:** Direct-connections do not require dialling and logging-on to the Internet or any other network. Dedicated access line services may not be offered by one, distinct end-to-end cable. Services do offer guarantees of stable bandwidth availability and near constant latency, which are the attributes, not



guaranteed on more public platforms. These attributes add significant value to the price.

- d) **Digital Subscriber Line (DSL):** DSL or Broadband is a high-speed Internet service like cable Internet. DSL provides high-speed networking over ordinary phone lines using broadband modem technology. DSL



technology allows Internet and telephone service to work over the same phone line without requiring customers to disconnect either their voice or Internet connections. DSL technology theoretically supports data rates of 8.448 Mbps, although typical rates are 1.544 Mbps or lower. DSL Internet services are used primarily in homes and small businesses. DSL Internet service only works over a limited physical distance and remains unavailable in many areas where the local telephone infrastructure does not support DSL technology.

EXERCISE 1

1) Using Internet we can:

- a) Send a letter to our family and friends
- b) Book a railway ticket
- c) Check our bank account
- d) Pay electricity bills

2) Which of the following are needed to access Internet?

- a) Computer
- b) Modem
- c) ISP
- d) Browser

6.2 INTERNET RESOURCES

World Wide Web (WWW)

WWW stands for 'World Wide Web'. It is important to know that this is not a synonym for the Internet. The World Wide Web or 'the Web' is a subset of the Internet. The Web consists of pages that can be accessed using a Web browser. The Internet is an actual network of networks where all the information resides.

Telnet, FTP, Internet gaming, Internet Relay Chat (IRC) and E-mail are all part of the Internet, but are not part of the World Wide Web. The Hyper-Text Transfer Protocol (HTTP) is the method used to transfer Web pages to your computer. With hypertext, a word or phrase can contain a link to another Web site.

Components of World Wide Web

- a) **Web Server:** A Web server is a system that delivers content or services to end users over the Internet. Web servers are computers that deliver (*serves up*) Web pages. Every Web server has an IP address



and possibly a domain name. For example, if you enter the URL <http://www.google.com/index.html> in your browser, this sends a request to the Web server whose domain name is *google.com*. The server then fetches the page named *index.html* and sends it to your browser.

b) **Web Browser:** A web browser is a software application used to locate, retrieve and display content on the World Wide Web, including web, images, video and other files. As a client/server model, the browser is the client run on a computer that contacts the Web server and requests information. The Web server sends the information back to the Web browser which displays the results on the computer or other Internet-enabled device that supports a browser.



c) **Web Page:** Web pages are what make up the World Wide Web. These documents are written in HTML (hypertext mark-up language) and are translated by your Web browser. Web pages can either be static or dynamic. Static pages show the same content each time they are viewed. Dynamic pages have content that can change each time they are accessed. These pages are typically written in scripting languages such as PHP, Perl, ASP, or JSP. Please



note that a Web page is not the same thing as a Web site. A Web site is a collection of pages. A Web page is an individual HTML document.

d) **Web Site:** It is a connected group of pages on the World Wide Web regarded as a single entity, usually maintained by one person or organization and devoted to a single topic or several closely related topics. The first web page that is displayed when you access the web site is known as home page. Every web site has a unique home page.



e) **Web Address:** An address string containing the access protocol, domain name, and file or resource path which is normally used to specify the address of a



web page, image, or other document on the Internet. A URL is written as <http://www.chetna.com>. In this URL, http:// indicates the protocol to be used to access the web page; www indicates the web site is on World Wide Web; chetna indicates the name of the web site and .com (dot com) indicates the name of domain. The domain name suffix indicates the type of organization to which the Web Site belongs.

Internet Explorer

Opening an Internet Explorer Browser

1. Click the Start button
2. Go to All Programs and click on Internet Explorer
3. The Internet Explorer window appears



The Internet Explorer window is divided into the following:

- **Title Bar:** This displays the name of Web Page and Web Browser. It contains three window buttons – Minimize, Restore Down or Maximize and Close.
- **Address Bar:** The name of the website or URL that you wish to browse is typed in the Address Bar. It contains Go or Refresh and Stop buttons. The Go button helps you load a webpage or website, the Refresh button helps you to reload the webpage and the Stop button stops any current operations by the explorer. On the left side of the Address Bar, there are Back and Forward buttons. These buttons help navigate to the previous and the next website that was visited recently.
- **Menu Bar:** This contains many menu options like File, Edit, View, Favourites, Tools and Help.
- **Web Page Area:** This is the area where the website or webpage is displayed.
- **Status Bar:** It provides the progress or status of a website/webpage as waiting, loading or done.

EXERCISE 2

Which of the following is composed of one or more web pages linked together?

- a) Web Server
- b) Web Site
- c) Web Browser
- d) Web Address

Search Engines

A Search Engine (SE) are websites whose purpose is to find websites that contain the information that a user is looking for but does not know the specific address of that website. Some commonly used SEs are Google, Yahoo, MSN, etc. Google is the most popular SE. They search documents for specified keywords and return a list of the documents where the keywords were found.



The SEs use electronic devices called Robots or Spiders. They run around the internet, including the WWW to search for the requested information. Different SEs use different methods of searching and they search for different sections of the webpages as per some keywords like Web page's titles, URL and entire text of the webpage.

Types of Search Engines:

- a) **Multi/Meta SE:** They employ more than one individual SEs to find your keywords. Google, Bing and Mamma are examples of this SE.
- b) **Directory:** They use a directory of websites that are manually examined and categorized as per the information they contain. Yahoo is an example of a Directory SE.

Using a Search Engine

When you use SEs to find something on the Internet, you are basically asking the SE to scan its database and match your keywords and phrases with the content of the URLs they have on file at that time. Spiders regularly return to the URLs they index to look for changes. When changes occur, the index is updated to reflect the new information.



EXERCISE 3

Which of the following is a Directory search engine?

- a) Mamma
- b) Google
- c) Yahoo
- d) Bing

7. COMMUNICATION TOOLS



LEARNING OUTCOMES

By the end of this module, you should be able to:

- Identify Communication Tools
- Create and use an Email account

LESSON PLAN

7.1 Communication Tools

7.1 Communication Tools

Introduction to E-mail

Email or electronic mail is the method of exchanging messages on the internet. An email contains various sections – Recipients field, Subject field and Message area. You need to have an email account to use this application. Many web based free e-mail services are available like Gmail, Yahoo and Hotmail. You can create your own email account in any or all of these websites.



EXERCISE 1

Which of the following website does provide the Web based free email service?

- a) Skype
- b) Facebook
- c) Blogger
- d) Hotmail

Creating an E-mail account

Step 1: Open the Internet Explorer.

Step 2: Type www.gmail.com in address bar.



Step 3: Click on the Go button or press enter.

Step 4: Click on the CREATE AN ACCOUNT button.



Step 5: Fill the online registration form.



Step 6: Click on the Next Steps button.



Step 7: Click on the Continue to Gmail button.



Using an E-Mail account

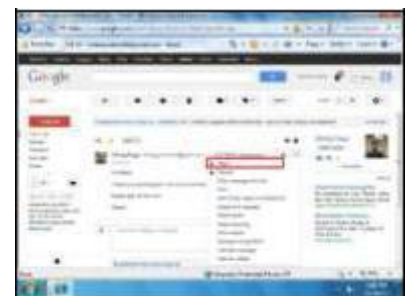
1. To access your email account, you first need to sign in. For this, first go to the Gmail homepage and type your Username and Password displayed on the right side of the screen. Then click on Sign In at the bottom.



2. You can now view your accounts page. Various links are displayed on the page like - Inbox, Starred, Important, Sent Mail, Drafts, Compose, etc. These contain related email items. You can also chat with your friends who are online. Inbox contains all your incoming mails. By clicking on Inbox you can access all emails that you have received.



3. On the right section, you can see all the emails that you have received and by clicking on them you can open each of them to view it. If you want to Reply to the sender of an email, you just need to click on the arrow displayed on the right side of the email and then click on the Reply button. A Reply box is displayed with the recipient's email id filled in the 'To' field. Type your reply in the message text area and then click on the 'Send' button on the top to send your email.



Writing a new Email

Step 1: Click on the Compose button and a new message window is displayed.

Step 2: Type the email id of the person whom you want to send the email in the 'To' field. You can send the email to multiple persons by adding their email ids in the 'To' field using a comma (,).

Step 3: In the 'Subject' field, type the subject of your message.

Step 4: Type your message in the message area.

You can also attach documents, pictures, etc. with the message by clicking on 'Attach a file' link just below the 'Subject' box. The formatting buttons just on top of the message area allows you to format your message according to your need.



Step 5: Once you finish typing your message, click on the 'Send' button to send your message.

All the successfully sent emails are stored in the Sent Mail folder. Some of your incomplete emails are stored in the Drafts folder. You can complete these drafts any time and send it.

Details of Key Links of Email

- **Reply:** Select this option to send an email to the one that you have received it from.
- **Reply All:** Select this option to send an email to all the email ids mentioned in the email that you received.
- **Forward:** If you want to send a particular email to a person whose email id has not been added in any of the fields, then you can forward the email to him/her by using the 'Forward' button. You just need to type the email id of that person and click on 'Send'.
- **Attachment:** Attachments are files that are sent along with email messages like reports, documents, photos, etc.

EXERCISE 2

Which of the following is required to access a mail account?

- a) Only username
- b) Only password
- c) Username and Password
- d) Sender's Email ID

8. COMMUNICATION AND COLLABORATION



LEARNING OUTCOMES

By the end of this module, you should be able to:

- Use Skype for voice and video chat
- Use Facebook for social interaction and communication
- Play and upload videos using YouTube

LESSON PLAN

8.1 Communication and Collaboration

8.1 COMMUNICATION AND COLLABORATION

USING SKYPE FOR VOICE AND VIDEO CHAT

Skype is a communication tool which allows you to talk through internet to anyone in any part of the world for free. You can make a call from your computer/laptop to other Skype users for free and to landlines or mobile phones for a fee. Skype has features like instant messaging, file transfer, voice calls and video calls.

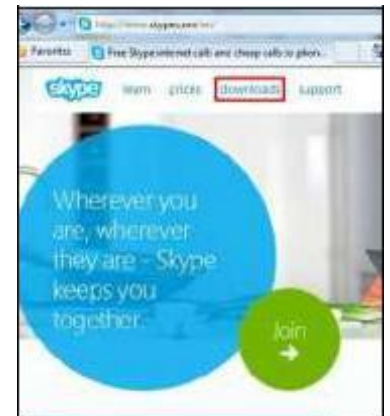
Steps in Downloading and Installing Skype

Step 1: Click on start button and then click Internet Explorer.

Step 2: Once Internet Explorer is opened, type www.skype.com in the address bar

Step 3: Click on the Go button or press Enter

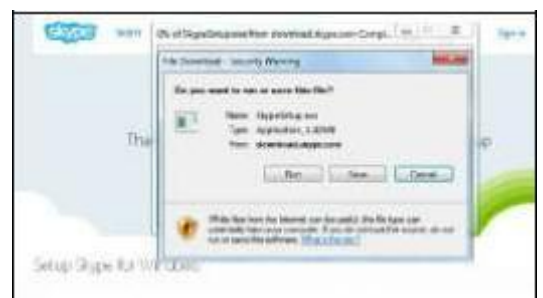
Step 4: The Skype homepage is now open. Click on [download](#) link, computer is selected by default in device section.



Step 5: Click on [Get Skype for Windows desktop](#) button.



Step 6: The opening [SkypeSetup.exe](#) appears, click on [Save](#) button and save the file in an appropriate location on your computer.



Step 7: To install the application, go to the location where setup file is saved and then double click on the SkypeSetup.exe file. [Open File- Security Warning](#) appears.

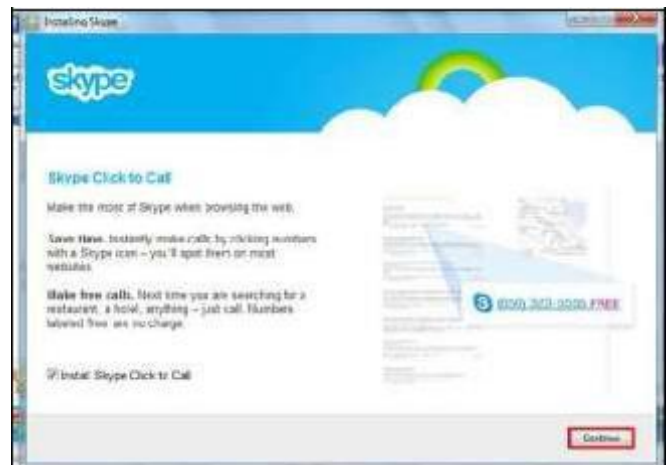
Step 8: Click on [Run](#) button to start the installation.



Step 9: Select [English](#) in language dropdown menu and then click [I agree – Next](#) button.



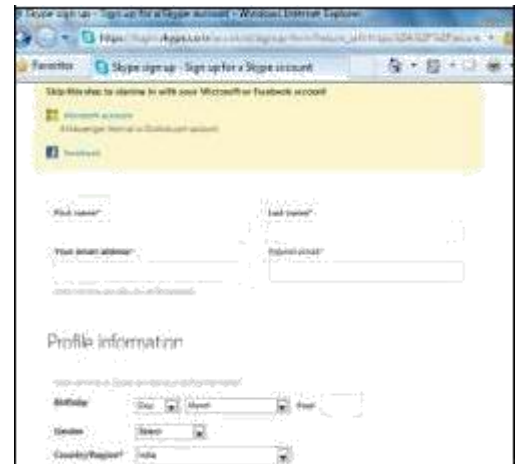
Step 10: Click on [Continue](#) button. The Skype installation starts. Wait for the installation to complete.



Step 11: Once installation is complete, click on [Create an account](#) button. A sign-up web page appears.



Step 12: Fill the [registration form](#) with the required details.



Step 13: Enter the security words displayed in the box and then click on [I agree- Continue](#) button. Your Skype account is created.



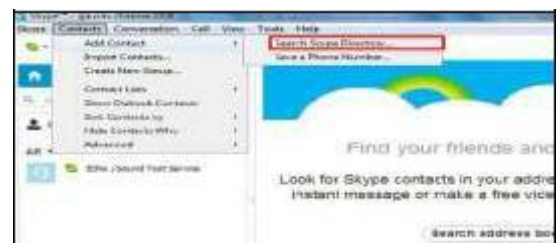
Using Skype: Interacting with Contacts

Step 1: Start Skype, enter your Skype Name and Password and then click on [Sign me in](#) button.

(When you sign in for the 1st time, you need to check your microphone and camera. You can also upload a profile picture for your Skype ID).



Step 2: Now you need to add contacts on Skype. Click on the [Contacts](#) menu option, select [Add Contact](#) and then select [Search Skype Directory](#).



Step 3: Provide the details of the person you wish to add. It asks for email, phone no, name and skype name details. Search the contact and click **Add** button to add the contact.



Step 4: A contact request box is displayed. Click **Send request** button. When the person accepts your request, his/her name will appear on your contact list.



Step 5: You can interact with your contacts by selecting the contact that is online. The green check mark appears beside the contact name showing that the contact is online.

1. Click on **Contacts tab**, click on the name of the person with whom you want to have a chat conversation with. A chat window with the person's name appears. Place your cursor in the **chat box** and start typing your messages.



2. Click **send** or press **Enter** to send the message.

3. For voice call click on **Call** button. If contact accepts your call then you can talk to him/her.



4. To end the call click on **end call** button.



5. If there is web camera installed on your computer then you can make a video call as well.

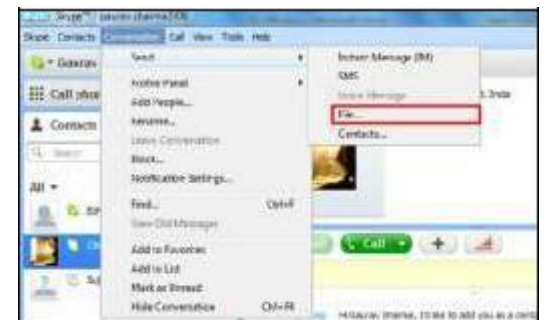
6. Click on [Video call](#) button to start the video call.



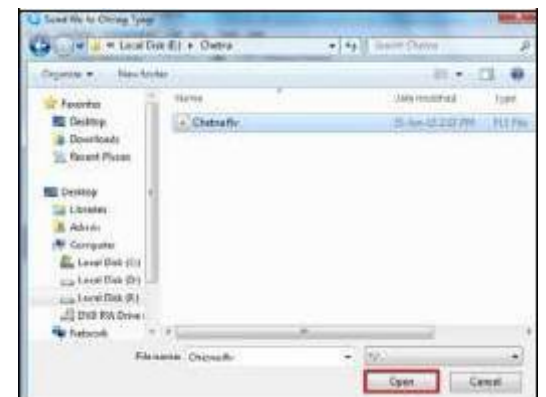
7. You can also share files to the contacts by selecting the contact.



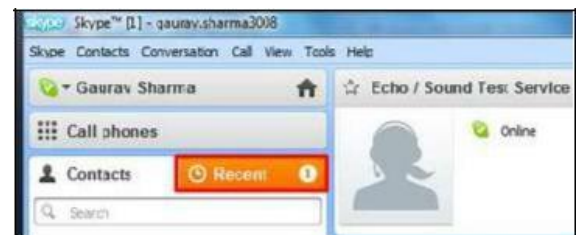
8. Select [Conversation](#) button, select [Send](#) and then [File](#) button.



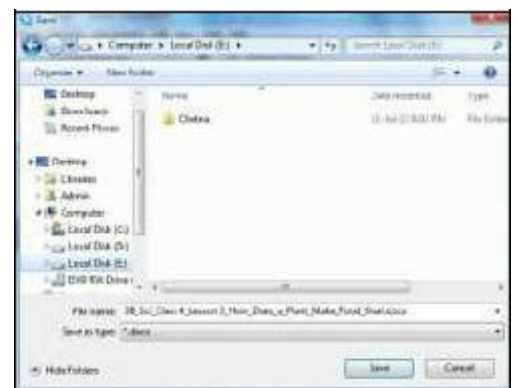
9. Browse and select the file you want to send and then click [Open](#).



10. Your contact can also send you any file and it will come in the notification window in contact list as [orange check marks](#).



11. You can receive the file by clicking the [Save as](#) button. Then choose the location where you want to save the file and then click on the [Save](#) button.



12. Chose the location you want to save and then click on [Save](#) button, which appears in dialogue box.

13. To open file, click [Open file](#) or click [Show in folder](#).



Step 6: Once you are done using Skype, click [Skype](#) and select [Sign Out](#) button. You are now signed out of your Skype account.



EXERCISE 1

Which of the following menu helps you add a contact to your Skype contact list?

- a) Skype
- b) Contacts
- c) Conversation
- d) View

Social Media Tools

Social media refers to the means of interactions among people in which they create, share, and/or exchange information and ideas in virtual communities and networks. Social media is the collections of online communications channels dedicated to community-based input, interaction, content-sharing and collaboration. Websites and applications dedicated to Online Chatting, Voice over Internet Protocol (VoIP), Blogs and Social



Networking are among the drivers of social media tools. Examples of social media applications are - Facebook, Blogs, Twitter, Orkut, LinkedIn and Wikipedia.

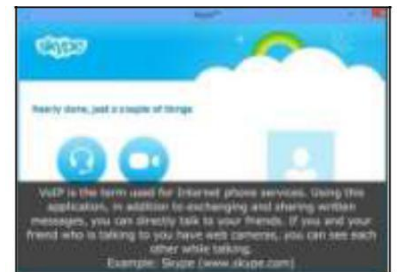
Types of Social Media Tools

1. **Online Chatting:** Online chat may refer to any kind of communication over the Internet that offers a real-time transmission of text messages from sender to receiver. Chat messages are generally short in order to enable other participants to respond quickly. Thereby, a feeling similar to a spoken conversation is created, which distinguishes chatting from other text-based online



communication forms such as Internet forums and email. Online chat may address point-to-point communications as well as multicast communications from one sender to many receivers and voice and video chat, or may be a feature of a web conferencing service. Few examples are Yahoo Messenger and G-talk.

2. **Voice over Internet Protocol (VoIP):** VoIP is a technology used for Internet phone services. Through VoIP calls can be made on the Internet using a VoIP service provider and standard computer audio systems. VoIP offers a substantial cost saving over traditional long distance telephone calls. The prime example of VoIP is Skype.



3. **Blogs:** Blog is an online journal kept by an individual, group or organization. Blogs can be used for sharing information about your subject on the internet, share news about recent events or developments, and share interesting discussions and debates by writing about them. Examples of Blogs are Blogger and WordPress.



4. **Social Networking:** This is a platform to build social networks or social relations among people who, share interests, activities, backgrounds or real-life connections. Social networking is web-based services that allow individuals to create a public profile, to create a list of users with whom to share connection, and view and cross the connections within the system. Facebook, Twitter, LinkedIn, etc. are some examples of Social Networking sites.



5. **Wiki:** Its a web application which allows anyone to add, edit or modify content that has been placed on the website. The best known example of a wiki website is Wikipedia.



USING FACEBOOK FOR SOCIAL INTERACTION AND COMMUNICATION

Prerequisite requirements in using Facebook - You need to have a valid e-mail account

Steps to use Facebook

Step 1: Open Internet Explorer



Step 2: Type www.facebook.com in address bar and then click Go button or press Enter

Step 3: In the Sign up, fill in the registration details in the boxes and then click on the Sign Up button. It will take you to three steps process to complete the registration.



Step 4: Click on find friends button to add contacts, you can skip this process at this stage.

Step 5: Fill out profile information page; you can skip this process as well.



Step 6: You can set your profile picture by uploading a photograph present in your computer.

Step 7: Click save and continue button and your Facebook account is created.



Step 8: You can add people by typing their name or e-mail in [Find people you know](#) section.



Step 9: You can upload your status as well on Facebook, to do that click on status button and then type your status and then click Post button.



Profile page provides various tabs

- In Timeline tab you can specify about your workplace, city, school and your relationship status.
- You can comment on the posts of your friend. For that you need to click on comment link and then comment box appears, type your comments and press ENTER.

Facebook bar tells you about Friend request, messages and recent activities by your friends.



The bar also contains search box where you can search your friends by typing his name and then you can visit his profile

Click on Add friend button to send the friend request to him/her.



Once you are done with Facebook, you can sign out by clicking setting icon on Facebook bar and then click on log out option.

Now you have a Facebook account, when you visit next time, sign in using your e-mail or phone number and then type your password. Click on the Log in button to login to your account and stay connected with your friends and family.



PLAY AND UPLOAD VIDEOS USING YOUTUBE

YouTube is the free website offered by Google. It is video sharing platform, founded in February 2005. YouTube allows billions of people to discover, watch and share originally-created videos. YouTube provides a forum for people to connect, inform, and inspire others across the globe and acts as a distribution platform for original content creators and advertisers large and small.

Steps to run YouTube

To run YouTube, one needs to have internet connectivity, adobe flash player and a speaker.

Step 1: Click on start button and open Internet Explorer.

Step 2: Type www.youtube.com in address bar and click on Go button or press Enter.

Step 3: The YouTube webpage loads. You can see the search bar on top of the page.



Step 4: Type search items or search keywords and click on the Search button or press Enter. A list of video links against the search items appears on the screen.

Step 5: Click on the link to watch the related video.

Step 6: The selected video is played in the video player. You can see various controllers below the video player like play/pause, volume/mute, total time, change quality and full screen.



You can find details and comments on the video below the video. You do not need an account to view popular and general videos on YouTube, but you need a login account to view private videos. To login to your account



Uploading Videos on YouTube

Step 1: To sign in to YouTube using your Google account, click on the Sign In button on top right hand corner of the YouTube webpage. The Google Sign In page appears.



Step 2: Enter your Email and Password and click on Sign In button. If you do not have Google account then you need to create it.

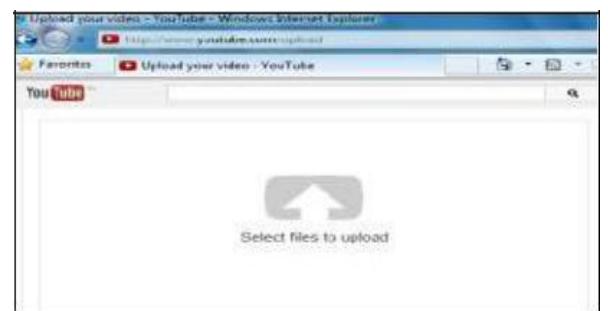
Step 3: The YouTube page will appear. Click on [Upload](#) button next to Search Box.



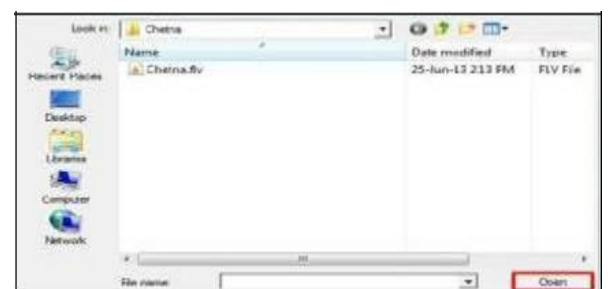
Step 4: For first time users, it will ask you to set up your channel and give some personal details like gender and date of birth. Fill in those details and click on the [Continue to upload](#) button.



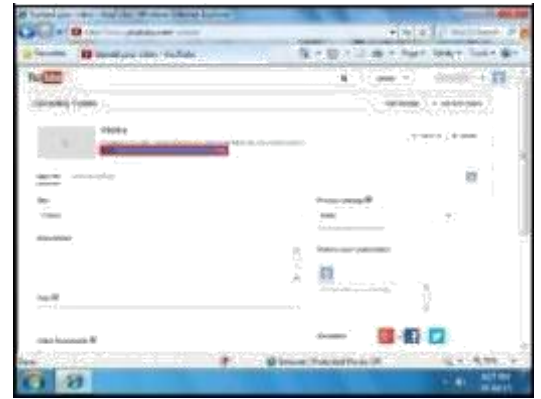
Step 5: Click on [Select files to upload](#) link.



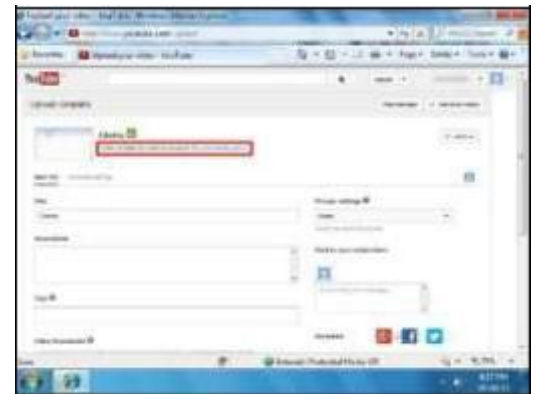
Step 6: Browse through your computer and select the video you want to upload. Click on [Open](#) button.



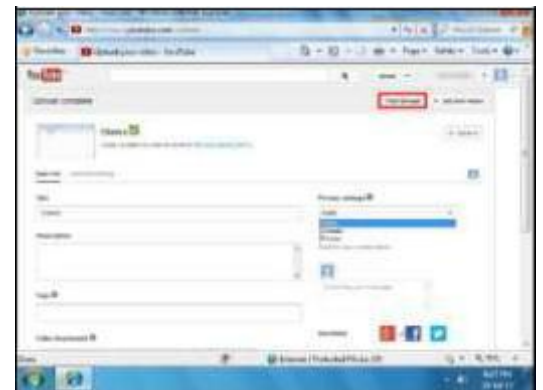
The downloading starts and the progress is displayed on the web page.



When uploading gets completed, a message – ‘Upload complete’ appears and the link to the video is also displayed. You can view the video later in YouTube. You can add the title and description and set the privacy setting of the video in the displayed page.



Once video is uploaded, you can change the privacy setting or delete the video using [Video Manager](#).



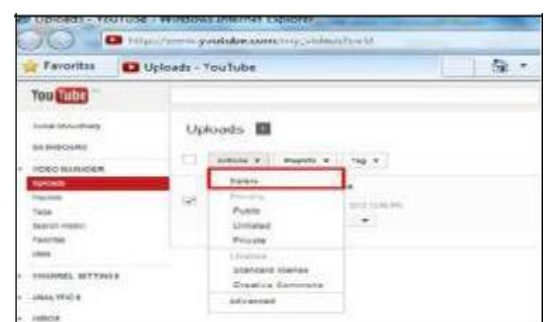
Deleting Videos on YouTube

Step 1: Click on Video Manager



Step 2: Click on video to be deleted

Step 3: Click on Actions menu and select delete.



Step 4: A confirmation message is displayed. Click on 'Yes, delete' button and your video gets deleted.



EXERCISE 2

Which of the following is an example of blogging application?

- a) Gtalk
- b) WordPress
- c) Skype
- d) YouTube