



ACADEMIC WORLD SCHOOL™ BEMETARA

Class- VII Subject- Computer



Introduction To Computers



LEARNER'S OUTCOME

After completing this chapter, you will be able to :

- ❖ recognise and classify the computer hardware and computer software parts
- ❖ mention the types and uses of various hardware and software
- ❖ discuss the relationship between hardware and software
- ❖ know the configuration of your computer
- ❖ explain the hierarchy of data
- ❖ detect problems in the computer system (Troubleshooting)

COMPUTER SYSTEM

A **computer** is a machine that works according to a list of instructions known as **program**. It is an electronic machine that helps you to process data. It is used to solve problems related to almost every field such as education, home, medicine, science and research, animation and publishing.



computer system

A computer system has **two** main parts which together make it work.

Hardware

Software

HARDWARE

These are the **physical units** of a computer system which you can see and touch. These units constitute the hardware of a computer system.

A computer hardware has following units:

Input devices Output devices Processing device Storage devices

Input Devices

Input devices enable you to enter (or input) data into a computer. You already know about the two most commonly used input devices: keyboard and mouse.



keyboard

mouse



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Some other input devices are :

Scanner : This input device scans images from photographs, posters, magazines directly into the computer. Some commonly used scanners are :

- ❖ **Flatbed Scanner :** It has a flat surface made of glass, where the item to be scanned is placed. It works like a photocopy machine.
- ❖ **Handheld Scanner :** This scanner is used by dragging it over the object that is to be scanned. It is most commonly used in shopping stores.



flatbed scanner handheld scanner

MICR (Magnetic Ink Character Recognition) : This input device is used to read and identify magnetized characters printed on a document such as a cheque.



MICR

Digital Camera : This input device is used to take photographs. The photographs from the camera can be transferred to the computer with the help of a data cable. Digital cameras hold a **memory card** that stores the photographs. The memory card can be taken out of the camera and the photos can also be put into the computer using a **card reader**.

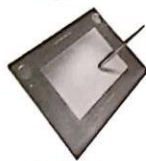


digital camera

memory card

card reader

Drawing Tablet : This input device is a board which has a special pen to write on it and connected to the computer. The word or image you draw on this device can be saved in the computer.



drawing Tablet

Touchscreen : A touchscreen is a screen that you can touch with your finger to input information. Examples of touchscreen devices are Tablet, touchscreen monitor, cell phones and ATM.



touchscreen monitor

Some other output devices are:

Plotter : This output device is used for making large paper drawings such as construction maps or engineering drawings. Plotters are divided into three types:

- ❖ **Drum Plotter :** This plotter consists of a drum or roller on which a paper is placed and the drum rotates back and forth to produce the graph on the paper. Drum plotters are used to produce continuous output, such as plotting earthquake activity.
- ❖ **Flatbed Plotter :** This plotter plots on a paper that is spread and fixed over a rectangular flatbed table. It is used in the design of cars, ships, aircrafts, buildings and highways.
- ❖ **Inkjet Plotter :** This plotter creates an image by spraying small droplets of ink on the paper. It is used in designing banners, billboards and road signs.



drum plotter

flatbed plotter

inkjet plotter

LCD Projector : This output device is used to display videos, images or computer data on a larger screen. It projects an image onto the surface by passing light over an LCD panel. It is used while giving presentations.



LCD projector

Processing Device

The **Central Processing Unit** or **CPU** is the processing device of a computer. It is called the **brain** of the computer. It makes all the required calculations and processes data into information. It controls all the input and output devices. The CPU consists of three units : **ALU**, **CU** and **MU**.



CPU

ALU or Arithmetic Logical Unit : It performs all the arithmetic computations and logical operations. It performs the mathematical calculations involving addition, subtraction, division, multiplication, logical as well as relational operations such as AND, OR, greater than, less than, etc.

Web Camera : A web camera (or **webcam**) is a video camera connected to a computer, that gathers a series of images which can be accessed using the Internet. Webcam technology is widely used in fields such as video conferencing and instant messaging.



webcam

Output Devices

Output devices enable the computer to show you the desired result and information. You already know about the most commonly used output devices : monitor, speakers and printers.



monitor



speakers

Let us know more about printers.

There are mainly three types of printers :

- ❖ **Dot Matrix Printer :** This printer contains movable print head with pins that strike the ribbon placing a dot on the paper with hundreds of dots forming images or text. These printers are less expensive but are very noisy. The speed of this printer is given in **cps** (characters per second).
- ❖ **Inkjet Printer :** This printer forms letters and images on the paper by spraying small streams of quick-drying ink. The speed of this printer is given in **lpm** (lines per minute).
- ❖ **Laser Printer :** This printer uses laser technology to print images on the paper. This gives the best quality output and are the most expensive. The speed of this printer is given in **ppm** (pages per minute).



dot matrix printer

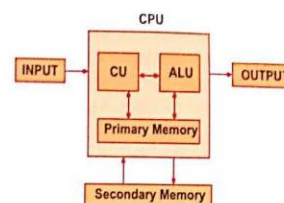


inkjet printer

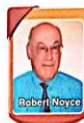


laser printer

CU or Control Unit : It controls and co-ordinates the activities of all the other units of a computer system. It controls all the operations of the computer. It decodes instructions, determines the storage of instructions and data. It takes data to the **ALU**, and from the **ALU** to the memory, and then to the output unit.



MU or Memory Unit : It is an important part of the computer system. Memory unit receives data, holds it and then delivers it according to the instructions from the Control Unit.



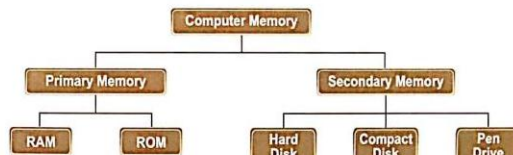
IT Personalities

Gordon Moore and Robert Noyce are the founders of **INTEL**. The Intel Corporation was founded in 1968. Intel stands for **INTEgrated ELEctronics**. Intel Core i7 is the latest core processor.



Storage Devices

Storage devices enable you to store data and information in them. The storage device of a computer system is known as **computer memory**.



There are two types of computer memory: **primary memory** and **secondary memory**.

Primary Memory : It is often called the working memory or the **main memory** of a computer system. **RAM** and **ROM** are two major types of primary memory.

- ❖ **RAM (Random Access Memory) :** It is capable of sending and receiving data at a very high speed. It is **temporary** in nature i.e. data stored in primary memory is lost when the computer is switched off. So, it is also called the **volatile memory**.
- ❖ **ROM (Read Only Memory) :** It holds instructions put by the manufacturer to operate the computer. It is a **permanent** memory.



RAM



ROM

KNOWING THE CONFIGURATION OF YOUR COMPUTER

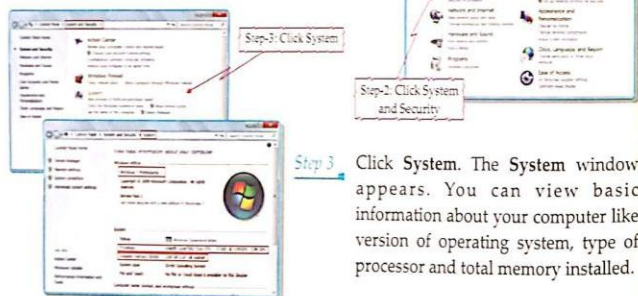
What is the configuration of your computer? When somebody asks you this question, he/she just wants to know four important things about your computer.

- Version of operating system
- Kind of processor (CPU)
- Total memory (RAM) installed
- Capacity of hard-disk drive

To know the configuration of a computer, follow the given steps:

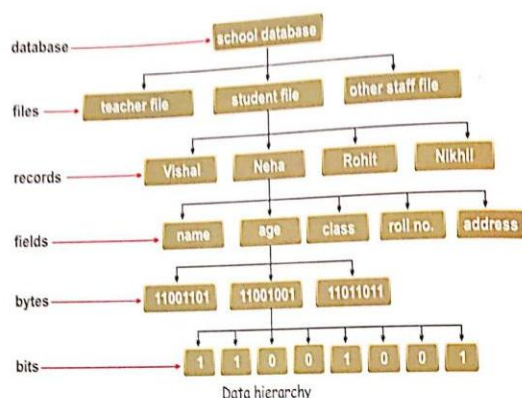
Step 1 Click Start button → Control Panel. The Control Panel window appears.

Step 2 Click System and Security. The System and Security window appears.



Step 3 Click System. The System window appears. You can view basic information about your computer like version of operating system, type of processor and total memory installed.

Double-click the Computer icon on the desktop to get information about the capacity of hard-disk drive. The Computer window appears. Just move your mouse pointer over the name of the disk and you can see the information like Space free and Total size.



Data hierarchy

Practical in Computer Lab

Collect as many fields as possible to describe yourself. These may include your name, age, height, colour, class, subject, school, father's name, mother's name and hobbies. Complete these fields using appropriate information.

Similarly, collect the same information about your parents, friends and other relatives. Enter these in a diary and name it as 'my database'. You may also give it any other suitable name.

Multiple Choice Questions

Tick (✓) the correct option.

- Software are a set of
☐ (a) programs ☐ (b) files ☐ (c) data
- A computer represents data using digits
☐ (a) 1 and 2 ☐ (b) 0 and 2 ☐ (c) 0 and 1
- A file is a collection of related
☐ (a) fields ☐ (b) databases ☐ (c) records

TROUBLESHOOTING TIPS

You are familiar with the computer system, its various parts and their working. You know that a computer system normally runs well and performs all required functions for you. But there are times when some parts of the computer do not work well or, at times, do not work at all.

DATA HIERARCHY

You know that data refer to raw facts and figures that may consist of alphabets, numbers, sounds, pictures and images.

A computer system processes data and gives information that is used for various purposes. The data is stored in the form of bits and bytes in a computer database.

Bit

A bit is the short form of **binary digit**. A computer system represents data using the digits 0 and 1. These digits show whether the computer circuits are OFF or ON. A bit is therefore represented by an electronic circuit that is either OFF or ON.

Byte

A byte is the collection of 8 bits. A byte of information is stored by using several bits in a predefined combination called **bit patterns**. Two such bit patterns are ASCII and EBCDIC.



The descending order of data hierarchy

Do You Know?

- The full form of ASCII is American Standard Code for Information Interchange and that of EBCDIC is Extended Binary Coded Decimal Interchange Code.
- A byte represents a character such as A, B, 1, 2.

Field

A field is a collection of bytes that contain information about an item. For example, the name of a student, his/her age and his/her class.

Record

A record is a collection of inter-related fields. For example, a student's record may contain fields such as name, age, class and subjects.

File

A file is a collection of related records. For example, a collection of all the records of all the students in your class is class file.

Database

A database is a collection of all the files in an organisation. For example, files of students, teachers and other staff members of your school make the school database.

Sometimes, the display is not proper, at other times the speakers or mouse are not working. Though fixing computer problems is the job of specially trained people, there are some problems that you too can fix.

Detecting the problem in a computer system when it is not working properly is called **Troubleshooting**.

Let us discuss some Troubleshooting tips for common computer problems.



Computer is not turning ON

- Check to see the power cord is properly attached or not. There are three connections that carry power supply.
 - From mains to the UPS.
 - From the UPS to the CPU.
 - From the CPU to the monitor.
- Check all these connections one by one. If the supply plugs are loose, electricity may not flow to the system.
- Make sure that the monitor switch is ON.

Mouse is not working

Check the mouse whether it is properly attached to its port of the CPU or not.

No sound

- Check to make sure that the speaker's cord is attached to the CPU box.
- Make sure that the power supply to speakers is proper and the speakers are ON.

Keyboard is not working

- Check if the cables are correctly connected. Connect it again to check for any loose connection.
- Check if it has got stuck.

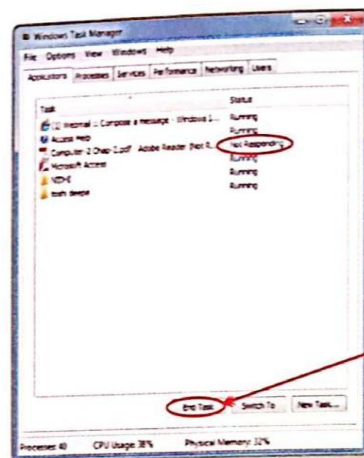
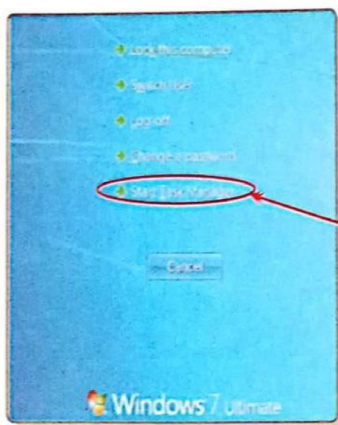
Keyboard is typing only capital letters

Check if the Shift key has got stuck due to hitting hard.

Computer is not responding

Suppose that you are working on your computer and your system suddenly stops responding to your commands. We say that your computer is **hung**. In this condition, your mouse or keyboard might not respond.

- ❖ Close the applications if possible.
- ❖ Press **Ctrl + Alt + Del** key combination. You see a screen with many options. Choose **Start Task Manager**. The **Windows Task Manager** opens. It shows all the applications currently running.
- ❖ If there is any problem with some application, you see the status with the message **Not Responding** after its name. Click and select the application.
- ❖ Now, click on the **End Task** button to terminate the problem. If the problem is still there, restart your computer.



Key Points

- A computer is a data processing machine.
- It has two main parts: hardware and software.
- Hardware comprises of the physical units of a computer system.
- Software is a set of programs or instructions.
- Both hardware and software together make a computer system functional.
- A computer represents data using bits (binary digit) 1 and 0.
- A byte is a collection of 8 bits.
- Detecting the problem in a computer system when it is not working properly is called Troubleshooting.

Exercise

A. Guess who am I



1. I display video, images or data on a larger screen.
2. I use to read and identify magnetized characters printed on a document.
3. I am the brain of the computer.
4. I am capable of sending and receiving data at a very high speed.
5. I help to store photographs in digital cameras.

B. Answer the following questions:

1. What is the relationship between hardware and software?
2. Write the steps to troubleshoot when your PC is hung.
3. Write a short note on application software and system software.
4. Explain computer memory and its types.
5. Explain the types of printer.
6. Differentiate the types of scanner.
7. Draw the block diagram of CPU.
8. How CPU works?
9. What is troubleshooting?
10. Write three differences between RAM and ROM.
11. What we should do if our computer is not turning?
12. How can we know the configuration of a computer?
13. .Explain the different types of plotter.

C. Higher order thinking skills:

1. Simran is an architect and wants to make a big plan for her building. Help Simran to choose the device and justify your answer.
2. In computer lab, every time Raju turns on his PC but nothing gets displayed on his screen. He asks help from his teacher to fix it. One day, the teacher gets angry and scolds Raju. He is very upset because his PC is still not on. Help Raju to fix the problem.



LEARNER'S OUTCOME

After completing this chapter, you will be able to :

- ❖ open Windows Explorer
- ❖ change the view of files/folders
- ❖ create shortcut of a file/folder on desktop
- ❖ group files/folders in different ways
- ❖ use On-Screen Keyboard
- ❖ explore Windows library
- ❖ organise files/folders in Windows Explorer
- ❖ burn a CD/DVD

WINDOWS EXPLORER

Windows Explorer is a program that is efficient for viewing files and folders in MS Windows. It is suitable for viewing files and folders in a **hierarchical** order.

Windows Explorer is very helpful for efficiently organising files and folders that are stored in different disk drives of a computer.

Opening Windows Explorer

To open Windows Explorer, follow the given steps:

- Step-1 Click **Start** button.
- Step-2 Click the **All Programs** option.
- Step-3 Click the **Accessories** option.
- Step-4 Click the **Windows Explorer** option.

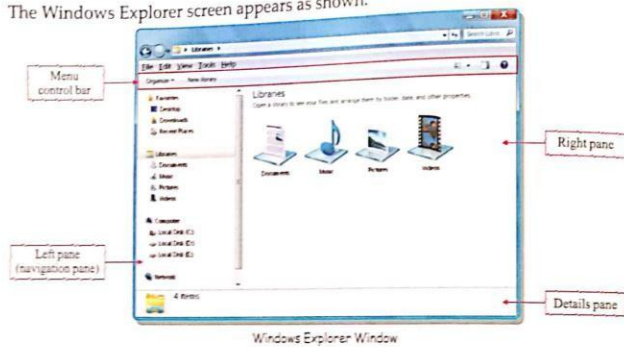


Or

Click on the **Windows Explorer**  icon on the taskbar.



The Windows Explorer screen appears as shown.



Windows Explorer Window

The Windows Explorer screen is divided vertically into two parts or panes: the left pane and the right pane. The left pane displays disk drives and folders in a hierarchical order. The right pane displays the contents of the folder/drive that is selected on the left pane.

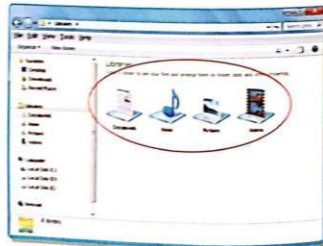
You see [A] and [>] signs in front of a disk drive or folder name. A [>] sign indicates that the folder contains subfolders. If you click the [>] sign, it shows the subfolders inside, and at the same time the [>] sign changes to [A] sign. This process is called **expanding** a folder. If you click the [A] sign which is in front of a folder, the expanded subfolders collapse back.

The menu control bar has many options to work with files and folders.

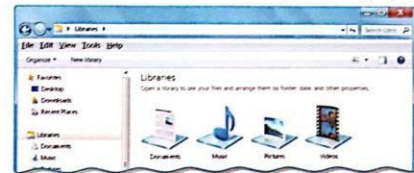
The details pane displays the details like size and type of the selected item.

LIBRARIES IN WINDOWS 7

Libraries are user-defined collections of content. It is a kind of folder in Windows 7 used to manage documents, music, pictures, and other files. A library gathers files that are stored in several locations but hide the actual location. You can browse your files in the same way as you would do in a folder.



When you open Windows Explorer, you see the **Libraries** folder selected on the left pane, by default. Double-click on the required library on the right pane to open it.



Documents library

Music library



Pictures library

Videos library

REMEMBER

You can use the Back and Forward buttons of Windows Explorer to go Back or Forward.

IT UPDATE

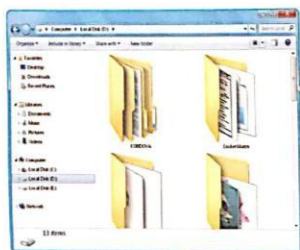
Windows 7 has a multitouch technology. When you use Windows 7 with a touchscreen PC, you can browse files and folders using your fingers. For example, you can open Documents in the Libraries with just one touch.



CHANGING VIEW OF FILES/FOLDERS

You can view the files and folders in different ways and can also arrange them according to your choice.

The **Change your view** option in menu control bar contains several options. Let us discuss each one of them.



Extra Large Icons view

Large Icons

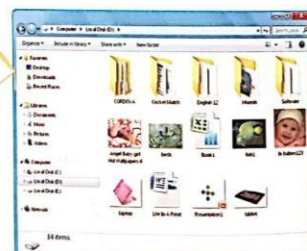
This option displays your files and folders as large sized icons.



Medium Icons view

Extra Large Icons

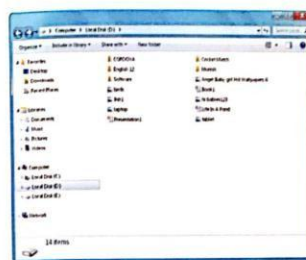
This option displays your files and folders as extra large sized icons.



Large Icons view

Medium Icons

This option displays your files and folders as medium sized icons.



Small Icons view

Small Icons

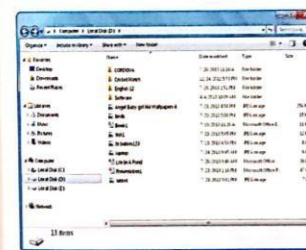
This option displays your files and folders as small sized icons.

List

This option displays the list of files and folders preceded by small icons. This view is very useful when your folder contains too many files and you want to view the list for a particular file name.



List view



Details view

Details

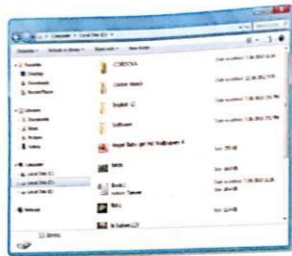
This option lists the files and folders with their detailed information including name, type, size and date when the file is last modified.

Tiles

This option displays your files and folders as icons. The icons are larger than those in list view and details view and the information is also displayed under the file or folder name.



Tiles view



Content

This option displays your files and folders in content format with name, type, size and the date when the file is last modified.

Content view

Practical in Computer Lab

1. Open Windows Explorer on the left pane.
2. Click the 'Local Disk (C:)' drive.
3. Apply different viewing options and see their effects.

ORGANISING FILES AND FOLDERS IN WINDOWS EXPLORER

Let us learn about the various options in Windows Explorer.

Opening Files/Folders

Open option appears in the menu control bar when you select a file/folder or a drive in Windows Explorer.

To open a file/folder, follow the given steps:

- Step-1** Select the folder.
- Step-2** Click the Open option to open all the files/folders inside the selected folder.



the folder opens in a new window

Step-3 Type a new name for the file/folder.



Practical in Computer Lab

1. Open the folder named 'My Folder' you created earlier in Windows Explorer.
2. Rename the 'My Text' file to 'My First Text'.

Selecting All Files/Folders

Select all option is used to select all the files and folders present in a folder or drive.

To select all the files and folders, follow the given steps:

- Step-1** Click the Organize menu.
- Step-2** Click the Select all option from the drop down list that appears. All the files and folders get selected.



NOTE To select non-adjacent files/folders, hold down the Ctrl key and click on the required files.

Practical in Computer Lab

1. Open Windows Explorer.
2. Click the 'Local Disk (C:)' drive on the left pane.
3. Open 'Program Files' in a separate window.

Creating New Folders

New folder option is used to create a new, empty folder in the currently selected folder.

To create a new folder, follow the given steps:

- Step-1** Select the folder from the left pane.
- Step-2** Click the New folder option from menu control bar.



Step-3 New folder icon appears on the right pane. Now, type a suitable name for the folder.

Practical in Computer Lab

1. Create a new folder in Local Disk (C:) drive and name it 'My Folder'.
2. Create a new text document file inside this folder and name it 'My Text'.

Renaming Files/Folders

Rename option in the Organize menu on the menu control bar is used to change the name of the existing file or folder.

To rename any file/folder, follow the given steps:

- Step-1** Select the file/folder.
- Step-2** Click the Rename option from Organize menu.

Deleting Files/Folders

Delete option in the Organize menu is used to delete selected files or folders.

To delete a file/folder, follow the given steps:

- Step-1** Select one or more files/folders.
- Step-2** Click Delete option from the Organize menu. A Delete Folder dialog box appears.
- Step-3** Click Yes to delete. The file gets deleted and moved to the Recycle Bin.



Practical in Computer Lab

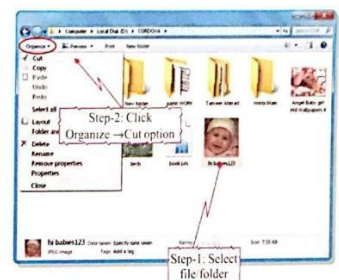
1. Open the folder named 'My Folder' you created earlier in Windows Explorer.
2. Delete the file named 'My First Text' from it.

Moving Files/Folders

Cut-Paste option is used to move files/folders from one location and paste at another location.

To move a file/folder, follow the given steps:

- Step-1** Select one or more files/folders.
- Step-2** Click the Cut option from the Organize menu.



Step-3 Now, select the folder location where you want to move the file/folder.

Step-4 Click Paste option from the **Organize** menu. You see the file pasted at the desired location.



Practical in Computer Lab

1. Open Windows Explorer.
2. Move the folder named 'My Folder' from the 'Local Disk (C:)' to Documents.

Copying Files/Folders

Copy option is used to copy a file/folder and paste it at another location.

To copy a file/folder, follow the given steps:

Step-1 Select one or more files/folders.

Step-2 Click Copy option from the **Organize** menu.

Step-3 Now, select the folder location where you want to copy the file/folder.

Step-4 Click the Paste option from **Organize** menu. You see the file pasted at the desired location.



Practical in Computer Lab

Copy data from the pen drive to the hard disk of your computer.

Guidelines:

1. Insert pen drive into the USB port of the CPU cabinet.
2. AutoPlay dialog box appears. Click **Open folder to view files** option.
3. Now, select the files/folders to be copied and then right-click → **Copy** (or **Organize** → **Copy**).
4. Now, select the location on your hard disk to paste these files, for example, Local Disk D: and then right-click → **Paste** (or **Organize** → **Paste**).
5. Before ejecting the pen drive, click on **Safely Remove hardware** option on the system tray. Eject the pen drive after you get a confirmation message.



Viewing Properties Of Files/Folders

Properties option is used to check the properties of any file or folder.

To check the properties of any file/folder, follow the given steps:

Step-1 Select the file/folder.

Step-2 Click the **Properties** option from the **Organize** menu. The Properties dialog box appears. Now, you can check out the properties.



Do You Know?

The Preview pane, if activated, displays the preview of the selected file. To activate it, click **Organize** menu → **Layout** option → **Preview Pane**.



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Multiple Choice Questions

Tick (✓) the correct option.

1. Windows Explorer has panes.
(a) one ☐ (b) two ☐ (c) three ☐
2. To check properties of any file/folder, click Properties option in the menu.
(a) Open ☐ (b) Organize ☐ (c) Share with ☐
3. option is used to move a file / folder from one location to another.
(a) Cut ☐ (b) Copy ☐ (c) Delete ☐

CREATING SHORTCUT ON DESKTOP

Creating shortcut on the desktop allows you to easily access the item that the shortcut links to. You can create a shortcut of a file/folder or a program.



To create a shortcut on the desktop, follow the given steps:

Step-1 Select the file/folder.

Step-2 Right-click on the selected file/folder and click the **Send to** option.

Step-3 Select the **Desktop (create shortcut)** option to copy a folder on the desktop.



Practical in Computer Lab

1. Open Windows Explorer.
2. Move the folder 'My Folder' from the 'Local Disk (C:)' to Documents.

Do You Know?

Shortcuts are a convenient way to open any file, program without going to the actual location of the file. You can create shortcut of any file at any location such as inside a folder or on the desktop.



GROUPING FILES/FOLDERS

Group by option organises files and folders by breaking them into different sections, depending on different parameters such as name, date modified, type, size, etc.

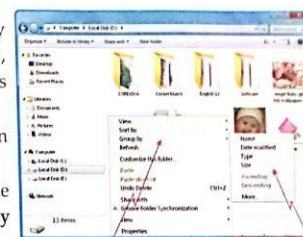
To group your files/folder, follow the given steps:

Step-1 Right click on one empty area of the window and select the **Group by** option from the list that appears.

Step-2 Select one of the many available options.



group by Name



Step-1: Right Click
→ Group by option

Step-2: Select
any one option

Name : It organises the files and folders in alphabetical order by their name.

Date modified : It arranges icons in the ascending order of their modification date. The file/folder that was last opened/modified comes at the last position in the list.



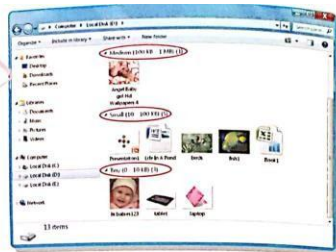
group by Type



group by Date modified

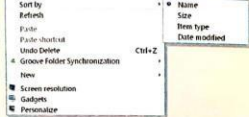
Type : It organises files and folders according to their file type. For example, when you have several folders in a drive, they will be grouped together.

Size : It organises files and folders in order of file size. The smallest size file/folder comes at the last position in the list.



DO YOU KNOW?

The Sort by option is used to arrange the icons of a file/folder according to different parameters such as Name, Size, Item type and Date modified.



Practical in Computer Lab

1. Open Windows Explorer. Open 'Documents'.
2. Apply different Group by options to see their effects.
3. Create a New Folder and name it as 'Go Folder'.
4. Open the 'Go Folder'.
5. Click the Back button to go back to 'Documents'.
6. Click the Forward button to come back to 'Go Folder'.
7. Sort the folders and files according to name.

ON-SCREEN KEYBOARD

On-Screen Keyboard is a feature provided by Windows 7 to write/create documents using On-Screen Keyboard in place of the actual keyboard which is attached to the computer system.

To open On-Screen Keyboard, follow the given steps :

Step-1 Click Start button.

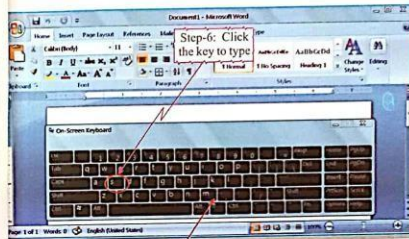
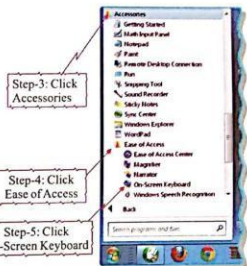
Step-2 Click All Programs option.



Step-3 Click the Accessories option.

Step-4 Click the Ease of Access option.

Step-5 Now, click the On-Screen Keyboard option. The On-Screen Keyboard appears.



Step-6 Now, type using the mouse or other pointing device by just clicking the required key.

Multiple Choice Questions

Tick (✓) the correct option.

1. are the convenient way to open any file without going to the actual location.

(a) Group by	<input type="checkbox"/>	(b) Shortcuts	<input type="checkbox"/>	(c) Sort by	<input type="checkbox"/>
--------------	--------------------------	---------------	--------------------------	-------------	--------------------------
2. Which input device is attached to the system while taking input from the users?

(a) keyboard	<input type="checkbox"/>	(b) mouse	<input type="checkbox"/>	(c) Both (a) and (b)	<input type="checkbox"/>
--------------	--------------------------	-----------	--------------------------	----------------------	--------------------------
3. Which option of Group by organises files and folders in order of file size?

(a) Name	<input type="checkbox"/>	(b) Size	<input type="checkbox"/>	(c) Type	<input type="checkbox"/>
----------	--------------------------	----------	--------------------------	----------	--------------------------

CD BURNING

CD burning is the process of copying files to CD/DVD.

To burn a CD, you require :

- a recordable CD drive or DVD drive
- a writeable CD-ROM
- a CD-burning software like Nero installed on your computer

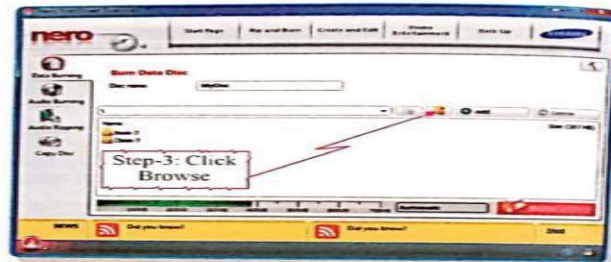
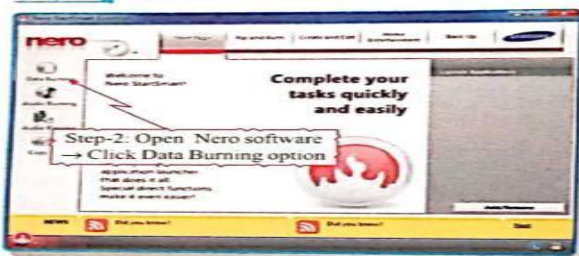
To burn a CD with Nero, follow the given steps :

Step-1 Insert CD in CD-ROM drive.

Step-2 Now, open the Nero software by double-clicking its icon on the desktop. Click Data Burning option from the starting screen.

Step-3 Click Browse button and select the required files.

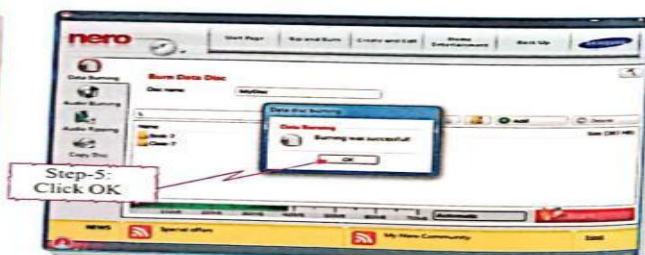
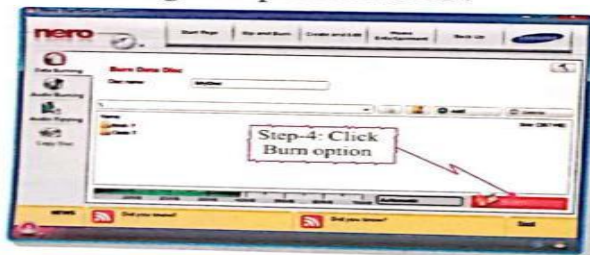
Step-1: Insert CD in CD-ROM drive



Step-4 Click Burn option to write the files in the CD.

Step-5 After the completion of the burning process, Data disc burning dialog box appears. This dialog box displays the confirmation message of the successful completion of the burning process. Now, click the OK button.

Your data gets copied to the CD.



DO YOU KNOW?

Nero is a CD/DVD burning software, used to copy files to a CD or a DVD. You need to install Nero software in Windows operating system before using it.

Exercise



A. Guess who am I

1. I am a program to view files and folders.
2. I am the process of copying data to CD/DVD.
3. I organize files and folders by breaking them into different sections.
4. I help to move a file or a folder from one location to another.
5. I gather files from different location but hide the actual location.

B. Answer the following questions:

1. What is the use of select all option?
2. How do you work with On-Screen keyboard?
3. What is Windows Explorer?
4. Write down the different group by options available for arranging the contents of a folder/drive.
5. What do you mean by CD burning?
6. How write the steps to open On-Screen keyboard.
7. Why do we need to create shortcuts?
8. How to create a shortcut of any files or folders on your desktop?
9. Draw a window explorer screen and label its components.
10. Write short notes on the following:
 - a) Libraries
 - b) Copy/Paste option
11. Write down the different viewing options available for viewing the contents of a file/folder.

C. Higher order thinking skills:

1. Rahul is a student of class 7. During the summer vacation he prepares a science project using computer. He decides to copy the project in a CD. Suggest the software he should use to perform the same and also show him the way to copy.
2. Suggest the steps to copy the folder 'World' from your hard disk to pen drive.

More On Internet

LEARNER'S OUTCOME

After completing this chapter, you will be able to:

- ❖ discuss the impact of Internet
- ❖ search information using search engine
- ❖ use people finder sites
- ❖ download software from Internet
- ❖ learn about FOSS
- ❖ use online educational sites
- ❖ search informative videos using a Tablet
- ❖ send e-greeting cards
- ❖ chat using Gtalk

INTRODUCTION

Internet (or the **Net**) is a network of computers that connects the computers worldwide.

The most commonly used service on the Internet is the World Wide Web (which is also called the Web). The Web contains websites, blogs and information regarding almost everything. Webpages on the Web can be seen and read by anyone (unless the page needs a password, or it is blocked). Sometimes the Internet can also be a dangerous place. Information posted by people on the Internet may not be always useful and it may also contain viruses.

IMPACT OF INTERNET

Internet has a great impact on our society. Everyday, the Internet expands by the social, political and economic activities of people all over the world and its impact grows exponentially.

The Internet has greatly influenced our society, government, commerce and other institutions. It is changing the way we live, work, learn, govern and communicate.

Let us learn some of the uses and services available on the Internet.

Online Education (e-learning)

Many educational institutes from all over the world now-a-days provide online educational facility. Internet makes it possible to learn in an environment where the teachers and the students are not needed at the same place or in a classroom.

Distance education becomes easier and affordable with the use of Internet.



Examples of a few e-learning sites are:

- ❖ www.topperlearning.com
- ❖ www.classontheweb.com

- ❖ www.cordovajoyfulllearning.com



www.cordovajoyfulllearning.com



www.classontheweb.com

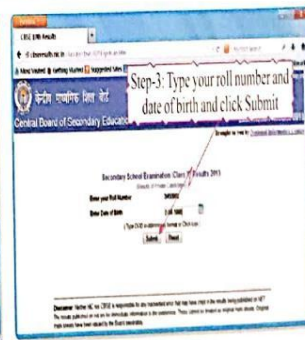
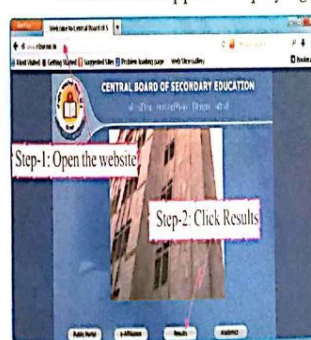
Online Exam

Some institutes conduct online exams for their courses. You can appear in an examination from your home sitting in front of your computer with an Internet connection.

Online Result

Just as you appear for an online exam, you can also view your results online without going anywhere, using Internet facility. For example, to check **CBSE-Class X Examination result**, follow the given steps:

- Step-1** Open the website www.cbse.nic.in.
- Step-2** Click the **Results** button. A new screen appears.
Click the link-**CBSE-Class X Examination**. A new screen appears.
- Step-3** Type your roll number and date of birth and click **Submit** button.
A new screen appears displaying your result.



Practical in Computer Lab

Visit some websites which offer online learning facility.

Searching Information

Internet is like a big library. More and more websites are coming up with the sole aim of providing information to people, be it about people, country, universe, food and cooking, books, movies, history, health and a lot more. You can visit sites which provide different types of information.

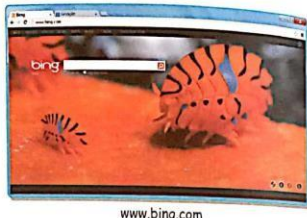
Search Engine

Search engine is an information retrieval system that finds information on the Web depending on the search criteria. Some popular search engines are :

- ❖ Google
- ❖ Bing
- ❖ Ask
- ❖ MSN



www.google.com



www.bing.com



IT Personalities

Sergey Brin and Larry Page founded the search engine, Google in 1998. Google was named after the word googol - the name for the number 1 followed by 100 zeros.

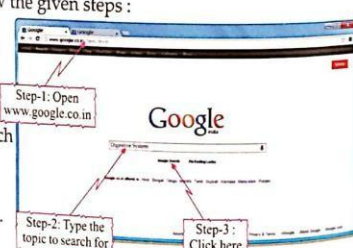


Searching Information On Internet

Search engines are used to search information on the Internet. These search engines display a list of hyperlinked results (often called **hits**) depending on the search term written in the search box. You just need to open any of these hits or links to see the information.

To search information on a topic, follow the given steps :

- Step-1** Open any search engine website for example, Google. Type **www.google.co.in** in the address bar.
- Step-2** Type the topic you want to search for, for example, Digestive System in the search box.
- Step-3** Click the **Google Search** button. You get a number of links(hits).



To save an image from the webpage, follow the given steps:

- Step-1** Open any search engine and click the **Images** option. For example, **www.google.com**
- Step-2** Type the name of the image you are searching for. For example, 'cute wallpapers'.
- Step-3** Click the **Search** button. You get a number of images.
- Step-4** Click the suitable image in the search engine website to open it.
- Step-5** Right-click on the image and select **Save image as** option.
- Step-6** Select the folder location in the **Save As** dialog box and specify the file name.
- Step-7** Click the **Save** button.



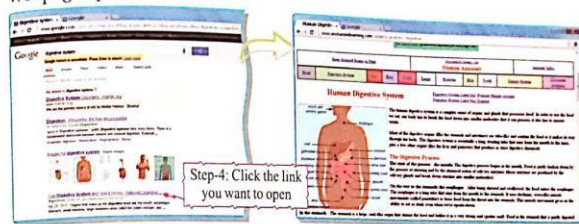
Practical in Computer Lab

Search for a topic 'Natural Disasters' and write an article in MS Word 2007.

Guidelines:

1. Open **www.google.com**
2. Type 'Natural Disasters' in the Search box and press the Enter key.
3. Open the appropriate link to see the matter.
4. Select the required text using the mouse and copy it.
5. Open MS Word 2007 and paste it.
6. Click the **Images** option on the Google website and Copy + Paste a few pictures in your MS Word file.
7. Repeat the process till you complete the article.

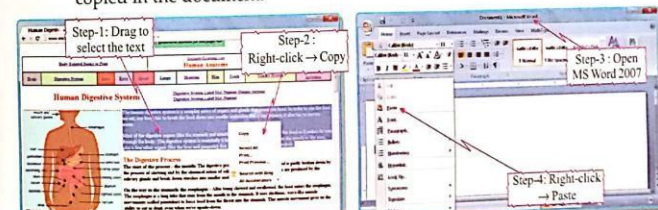
Step-4 Click on the link which you find the most appropriate for your search. The webpage opens.



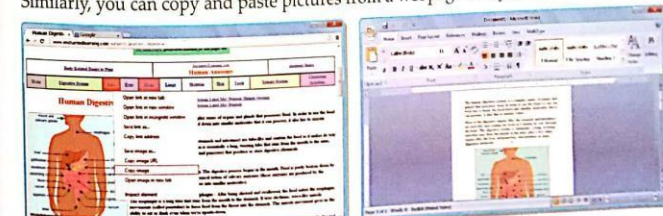
Now, you can use the information present on the webpage for learning.

To copy text from a webpage, follow the given steps:

- Step-1** Select the text you want to copy from a webpage, by dragging the mouse over the text.
- Step-2** Right-click and select the **Copy** option.
- Step-3** Now, open the document where you want to paste the selected text. For example, MS Word 2007.
- Step-4** Now, right-click and select the **Paste** option. The text from the webpage gets copied in the document.



Similarly, you can copy and paste pictures from a webpage into your document.



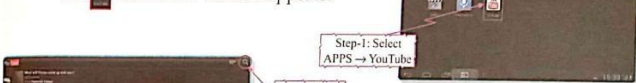
Searching Informative Videos Using A Tablet

The Tablet is being more and more widely used as a self-tutor now-a-days. Using a Tablet, you can search for any information that you want for your study purpose. For example, let us search informative videos on 'water cycle'.

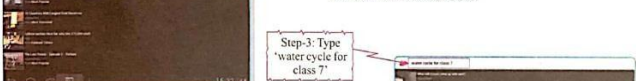
To search for informative videos on the topic 'water cycle', follow the given steps:

Select the **Apps** icon on the top right corner of the opening screen of a Tablet.

- Step-1** A window appears with two tabs **APPS** and **WIDGETS**. Select the **APPS** tab and choose the **Apps** icon. A new window appears.

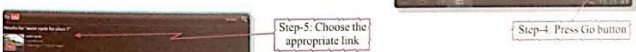


- Step-2** Select the search icon on the top right corner of the screen.



- Step-3** Type 'water cycle for class 7' in the search box, using the virtual keyboard.

- Step-4** Press the **Go** button. A new screen appears with many links.

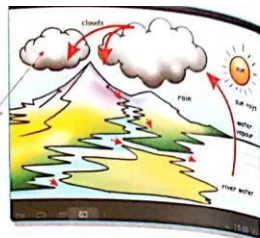


- Step-5** Click the appropriate link to see and learn more about 'water cycle'.



Step-6 From the selected link, the video of 'water cycle' is played before you.
You can search on any topic of your interest in this way and learn more things by yourself.

Step-6: Watch the video on water cycle



IT UPDATE

Cloud Computing is a technology that uses the Internet to maintain data and applications. Cloud Computing provides software, data access and storage services to the user as per the location of their preferences, duration of their liking and application of their choice.

Finding People

You can find people on the Internet. You can find your classmates, relatives and other great personalities on the Internet. There are sites which offer this facility.

You can find their addresses, telephone numbers, e-mail ids, etc provided the person has a profile created on the Internet.

Some popular people-finder sites are:



www.pipl.com



www.lullar.com

Practical in Computer Lab

Try to find information about your favourite film star using any people-finder site.

Multiple Choice Questions

Tick (✓) the correct option.

- Webpages on the Web can be by anyone.
(a) read ☐ (b) deleted ☐ (c) modified ☐
- Internet is like a big
(a) library ☐ (b) home ☐ (c) shop ☐
- Which of the following is not a search engine?
(a) Google ☐ (b) Cordova ☐ (c) Bing ☐

E-Greeting Cards

You send greeting cards to your relatives and friends on different occasions. You can send greeting cards through the Internet in the same manner as you send e-mails to them. There are several sites, which provide this facility. E-greeting cards are both free and paid i.e. you can send greeting cards for free as well as by paying money. You have already learnt in the previous class how to send an e-greeting card.

Some of the popular e-greeting card websites are:

- www.123greetings.com
- www.e_cards.com
- www.blumountain.com
- www.hallmark.com



www.123greetings.com



www.blumountain.com

Practical in Computer Lab

Send a birthday e-card to your friend.

Guidelines:

- Open any free e-greeting card website.
- Look for the category 'Birthday'.
- A thumbnail view of the cards are displayed. Click the card of your choice.
- Fill in the details of the receiver and your e-mail id.
- Type your message and click the Send button.

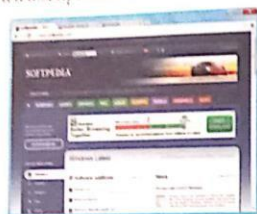
Downloading

Downloading is the method by which you can access files, software and some other information from a remote computer using Internet. When you access a website or webpage, you actually download the text and all the images and graphics from the main computer where all these are stored.

There are many sites that provide the facility of downloading. You can download application software, games, movies, songs, etc from these sites.

Some of the popular websites which provide downloading facility are:

- www.softpedia.com
- www.filehippo.com
- www.brothersoft.com



www.softpedia.com



www.filehippo.com

Do You Know?

There are special software available to download files from the Internet. These are called downloaders. For example, Internet Download Manager. These software provide an easy-to-use way to download files.

Chatting

Using the chat facility on the Internet, you can talk and communicate with people all around the world at any time.

There are many sites which offer the chat facility. For this purpose, there are some special software available called Instant Messengers. You can log on to them and chat with various other people online. The chat software is an interactive software with the help of which you can chat very easily.

Some of the popular chat software are:

- Yahoo Messenger
- Gtalk
- Windows Live Messenger
- Skype

To use these software, you must download them through Internet and install them. You must also have a user account.

For example, let us see how to chat using Google Talk (Gtalk).

To chat using Gtalk, follow the given steps:

Step-1 Double-click the Gtalk icon on the desktop.

Step-2 Enter your username and password in the respective box provided for them.

Step-3 Click the Sign in button.

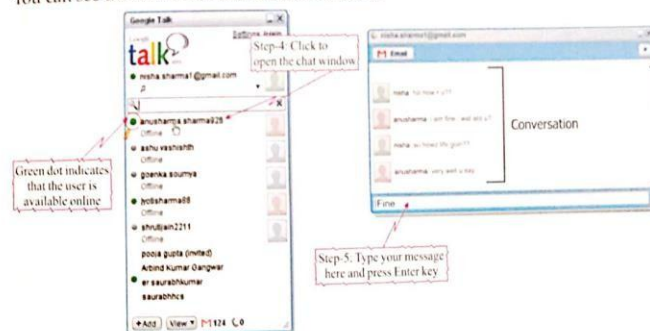
The Gtalk window opens.

You can see other users who are logged on i.e. available online.

Step-4 Click on the user to open the chat window.

Step-5 Type your message in the blank box at the bottom of the window and press the Enter key.

You can see the conversation in the chat window.



IT UPDATE

WhatsApp messenger is a very popular Instant Messenger for Smartphones. It was founded by Brian Acton and Jan Koum.

Practical in Computer Lab

Install Gtalk software and chat with your friend.

REMEMBER

Chatting can be fun as well as waste of time. It depends upon how you use it.

INTRODUCTION TO FOSS

FOSS stands for free and open-source software. You have been using many FOSS software like Tux Paint, Tux Typing, Scratch, QBasic and Logo. Free and open-source software ensure the user to freely run, study, distribute, change and improve the software in any way. It basically allows freedom for user to:

- ❖ run the software for any purpose.
- ❖ study how the software works.
- ❖ distribute the copies of the software to others.
- ❖ change and improve the software.

Do You Know?

Notes and guidelines are provided for installing and using the features of an application. These guidelines are called Documentation.

Let us learn how to install a free and open source software.

Installing A Foss Software

Let us learn to install Scribus. It is a free and open-source software used for desktop publication. You can download Scribus from the following website:

www.scribus.org/download.com

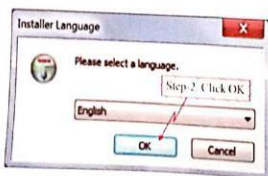
To install the Scribus, follow the given steps:

Step-1 Double-click the scribus-1.4.3-windows

icon on the desktop.

The setup will start loading.

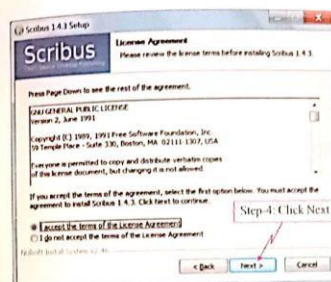
The Installer Language screen appears.



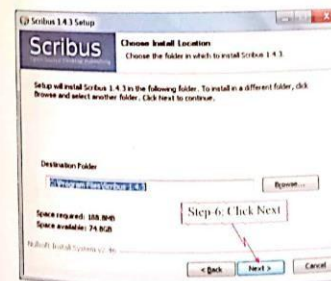
Step-2 Click OK button. The Scribus 1.4.3 Setup screen appears.



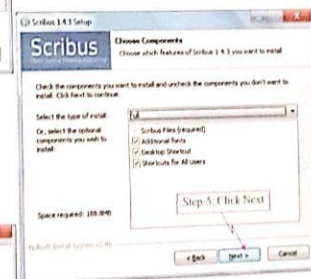
Step-3 Click **Next >** button. A new screen appears.



Step-5 Click **Next >** button. A new screen appears.

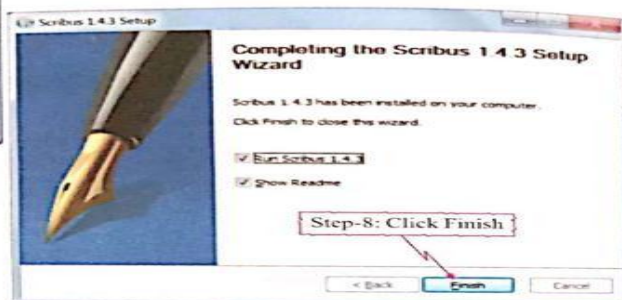


Step-4 Accept the license agreement and click **Next >** button. A new screen appears.



Step-6 Click **Next >** button. A new screen appears.

Step-7 Click **Install** button and Scribus starts installing. A new screen appears.



Step-8 Click **Finish** button to close the wizard.

The Scribus 1.4.3 icon appears on the desktop.

Visit the following link : wiki.scribus.net/canvas/Help:TOC to know more about Scribus.



IT Personalities

Linux is a free and open source operating system developed by Linus Torvalds in 1991.

Key Points

- Internet is a network of computers connected worldwide.
- Internet is used in the field of education for online learning, giving tests and viewing the results.
- Search engine is an information retrieval system that finds information on the web depending on the search criteria.
- E-greeting card websites are used to send online greetings cards.
- Downloading is the method by which you can access files, software and information from a remote computer using Internet.
- Using the Internet chat facility, you can communicate with people instantly.
- FOSS stands for free and open-source software.

Exercise

A. Guess who am I



1. I am a network of computers connected worldwide.
2. I am a website to send greeting cards online.
3. I am a very popular instant messenger.
4. I am a technology that uses the internet to maintain data and applications.
5. I am a retrieval system on the web.

B. Answer the following questions:

1. What is World Wide Web?
2. What is the impact of internet on our society?
3. How is result checked online?
4. What is the full form of FOSS?
5. What is downloading?
6. What is the use of people finder site?
7. Give two examples for each of the following:
 - a. Search engine sites
 - b. E-greeting sites
 - c. People finder sites
 - d. Instant messengers
 - e. FOSS
8. How do you search any information on web?
9. How is internet used in the field of education?
10. How FOSS is user friendly?
11. What is cloud computing?
12. Differentiate between webpage and website.

C. Higher order thinking skills:

1. Mohan's SST teacher has given a project. He has to download some pictures from Google. Help Mohan to save the image in his computer.
2. Lisa wants to copy the text from a webpage to a document. Guide her to do so.