SUMMER ASSIGNMENT
Class -III
Subject - Computer

Introduction To Computers

LEARNER'S OUTCOME

After completing this chapter, you will be able to:
- differentiate between hardware and software
- identify and name common hardware parts and parts inside the CPU
- identify and list the categories of hardware – input, processing and output devices
- know the names of popular software
- differentiate between system software and application software

INTRODUCTION

You have seen a computer with all the parts. Do you know that the computer is also called a system?

A **computer system** is defined as a machine that is used to generate information from data.

Do You Know?

Data are the raw facts and figures. Information is meaningful data.

A computer system has different parts that together make it work. These parts are:

- hardware
- software

You play games on a computer. The game is an example of **software** and things such as the mouse, keyboard, monitor and joystick with which you play the game, are examples of **hardware**.

You draw pictures using the mouse in Paint program. The Paint program is an example of **software** and the mouse is an example of **hardware**.

You can touch or feel the hardware parts but you cannot touch the software.
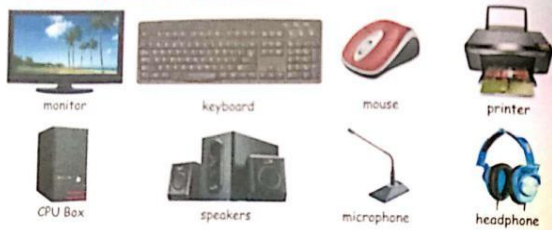
REMEMBER

Both hardware and software help the computer to do its work.

Let us learn about the computer hardware and software in detail.
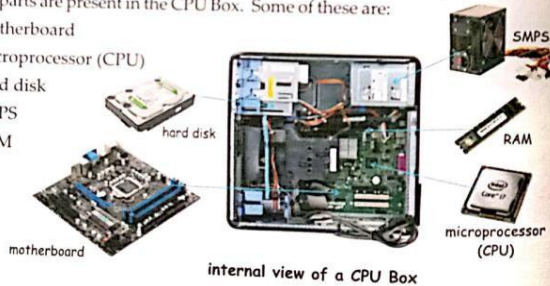
COMPUTER HARDWARE

Computer hardware refers to the parts of a computer system that you can touch and feel such as monitor, CPU, keyboard, mouse, printer, speakers, microphone and headphone. In other words, **computer hardware refers to all** the electronic and mechanical parts of a computer system.

Some commonly used hardware parts are:

monitor   keyboard   mouse   printer

CPU Box   speakers   microphone   headphone

You know that some body parts like the brain, heart, liver and lungs are inside your body. Similarly, the computer also has some hardware parts inside it. These parts are present in the CPU Box. Some of these are:

- motherboard
- microprocessor (CPU)
- hard disk
- SMPS
- RAM

hard disk

SMPS

RAM

motherboard

microprocessor (CPU)

internal view of a CPU Box

Categories Of Hardware

Hardware is categorised into three types of devices according to their function. These are:

Input Devices

The devices which are used to give input to the computer are called **input devices** like keyboard, mouse, microphone and scanner.

Processing Device

The device which is used to process the input data is called **processing device**. CPU is a processing device.

Output Devices

The devices which are used to show the output of the processed data are called **output devices** like monitor, printer, headphone and speakers.

Multiple Choice Questions

Tick (✓) the correct option.
1. The game you play on computer is an example of ....
   (a) hardware ☐   (b) software ☐   (c) book ☐
2. .... is not present inside the CPU Box.
   (a) RAM ☐   (b) Microprocessor ☐   (c) Printer ☐
3. A computer is a ....
   (a) machine ☐   (b) software ☐   (c) antivirus ☐

COMPUTER SOFTWARE

Software is the set of programs (instructions) that tells a computer what to do.

Some of the popular software are:

Photoshop CS3   MS Office   Windows   Stunx 2 (Game)

Do You Know?

Hardware cannot work alone. Software makes the hardware parts work.

Types Of Software

There are two types of software:
- application software
- system software

Application Software

Have you noticed the wall clock at your home. What does it do? It does only one thing. It shows the time.

Similarly, the **application software** is a software that helps you in doing some **specific work**.

For example, you use Paint program to draw. You cannot do sums using Paint. To do sums, you use the Calculator program.

Let us look at some application software:

Paint   Windows Media Player

Purble Place   Calculator   WordPad

System Software

As your parents control and manage different works at your home, the **system software controls** and **manages** the overall activities of a computer system. So, the **system software** is like a **manager** of a computer system.

System software runs the application software. When you start your computer, a software also starts with it. This software is called the **operating system. Operating system** is an example of system software.

Let us look at some operating systems:

Windows XP   Windows 7   Windows 8

The **Windows** in your computer is an **operating system**, which is an example of **system software**.

System software is a very important part of a computer system. Without system software, the computer is like a car without driver.

REMEMBER

Operating System (OS) is a part of system software.

Key Points

- A computer is also known as a computer system.
- A computer has two major parts: hardware and software.
- Both hardware and software together help the computer to work.
- Computer hardware refers to all the electronic and mechanical parts of a computer system.
- Software is a set of programs that tell a computer what to do.
- There are two types of software: application software and system software.

Exercise-1

INTRODUCTION TO COMPUTERS

A. Fill in the following blanks with appropriate answer.

1. _____ is an operating system.
2. The software used to do sums on a computer is _____
3. System Software is like a ____ of a computer.
4. We can touch and feel the __.
5. An _____ is the part of operating system.

B. Write the answer in one word:

1. This is a set of instruction that tells the computer what to do._____
2. This software controls the overall activity of the computer._____
3. This device is used to process the input data._____
4. This device is used to show the output of the processed data._____
5. This device is used to give input to the computer._____

C. Answer the following questions:

1. What are the two types of computer software?
2. Name any hardware part present inside the CPU Box
3. What is computer System?
4. What is computer hardware?
5. What is an input device? Write two examples of it.
6. What is processing device? Write two examples of it.
7. What is application software? Write two examples of it.
8. What is system software? Write two examples of it.
9. What is an output device? Draw different output devices.
10. What is software?

D.HOTS(Higher Order Thinking Skill)

1. Shourya wants to watch a cartoon movie on the computer. Which part of the computer will display his favourite cartoon movie?
2. Anita wants to record the National Anthem in her voice. Which input device can she use for the same?

2 Learn To Use MS Windows 7

LEARNER'S OUTCOME

After completing this chapter, you will be able to:
- define operating system
- locate and define the taskbar and its components
- discuss the advantages of Windows 7
- use Windows Accessories : Calculator
- locate and define the components of desktop
- select, deselect, sort and hide icons
- know about touchscreen devices

OPERATING SYSTEM–INTRODUCTION

Have you ever noticed, how different tasks at your home are done so well? It is because your parents manage all the work at home.

In other words, they act as managers.

The computer is made up of different parts and does different kinds of work at a time. It also requires a manager for it. The manager in a computer is called the **operating system**.

Operating system is a software that helps you to operate the computer system through its various functions. It controls and manages the different parts of a computer system. It acts as an interface between the user and the computer system.

There are different operating systems. Some of the popular operating systems are:

- MS DOS
- MS Windows
- Unix
- Linux
- MAC OS

Do You Know?

There were no operating systems in early computers. Operating system came in the computer field late but they were accepted very quickly.

IT UPDATE

Linux is a free operating system. Linux 3.14.5 is the latest version released on 31st May 2014.

■ MS WINDOWS

Let us learn about MS Windows operating system. **MS Windows** is the most popular system software in the world. It is made by a company named **Microsoft Corporation**, USA.

When we switch on the computer, the operating system gets loaded into the computer's memory. This process is called **booting**. While your computer is booting, you see a picture of **Windows flag** as shown. Most of the people use MS Windows operating system in their computers because:

- ■ It is **very easy to use.**
- ■ It is **graphic based**, so you do not have to remember all the commands, as in some other operating systems.
- ■ **Programs** are arranged in different files and folders .
- ■ It has **icons** which help to do different things quickly.

MS Windows has many flavours called **versions**, for example, Windows XP, Windows Vista, Windows 7 and Windows 8. In this chapter, we will learn about **Windows 7**.

> **IT Personalities**
> **William Henry Gates** (Bill Gates) is the Chairman of the Microsoft company. He developed the first version of Windows operating system in 1983.

■ WINDOWS 7 DESKTOP

You see a screen when the process of **booting** is completed. This is the **desktop**.

The Windows 7 desktop has four components : **desktop background, icons, taskbar** and **gadgets**.

Let us learn about each of these one by one.

■ DESKTOP BACKGROUND

The background picture of Windows 7 desktop is called **desktop background**. You see different desktop background **pictures on different computers** according to their settings.

> **DO YOU KNOW?**
> You can set the desktop background on your computer according to your choice.

■ ICONS

An **icon** is a small picture that is used to open a program, file or folder. For example, see the **Computer** icon or the **Recycle Bin** icon on the desktop.

> **Practical in Computer Lab**
> Count the number of icons on the Windows 7 desktop of your computer.

Selecting/Deselecting An Icon

To select an icon, follow the given steps:

Step-1 Bring the mouse pointer over an icon.

Step-2 Click the left mouse button once.

The colour of the icon changes. It means that the icon is **selected**.

To deselect an icon, follow the given steps:

Step-1 Move the mouse pointer away from the selected icon.

Step-2 Click the left mouse button once.

The colour of the icon changes to its original colour. It means that the icon is **deselected**.

Opening An Application Using Icons

To open any application or program, double-click on its icon.

> **Practical in Computer Lab**
> **Select and deselect the 'Computer'** icon.
> **Guidelines:**
> Step-1: Single-click on 'Computer' icon on the desktop to select it.
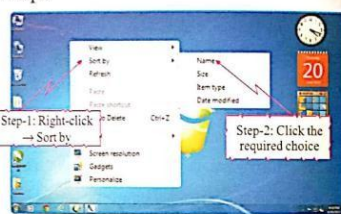> Step-2: Click anywhere on the desktop away from the selected icon, to deselect 'Computer' icon.

Sorting Icons

Sorting the icons means arranging the icons on the desktop.

To sort the icons, follow the given steps:

Step-1 Right-click on any blank area of the desktop. A pop-up menu appears. Click the **Sort by** option.

Step-2 Click the choices given in the menu to arrange the icons in that order.

> **REMEMBER**
> For the computer to arrange itself the icons right-click on the desktop → Click View→ Click Auto arrange icons.

Hiding Desktop Icons

You can hide all the icons on the desktop.

To hide the icons, follow the given steps:

Step-1 Right-click on any blank area of the desktop. Click **View** option from the pop-up menu.

Step-2 From the submenu, click the **Show desktop icons** to **uncheck** it. You see that all the icons on desktop become invisible.

You can bring back all the desktop icons by again clicking the **Show desktop icons** option in the pop-up menu of View option.

> **Practical in Computer Lab**
> **Perform the following tasks on the icons :**
> Step-1: Arrange icons on your desktop in different ways such as Name, Size, Item type and Date modified.
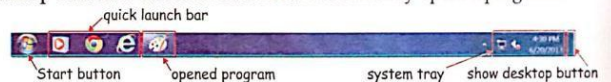> Step-2: Hide your desktop icons.
> Step-3: Bring back your icons.

■ TASKBAR

A long horizontal bar at the bottom of the desktop is called the **taskbar**. The taskbar has a **Start button, quick launch bar, system tray** and **show desktop button**. It also shows icons for the currently opened programs.

Quick Launch Bar

It launches an application quickly. You open the respective application by single clicking on its icon on the quick launch bar.

System Tray

It displays the current date and time.

Show Desktop Button

This button minimises all the opened programs and displays the desktop. Click on this button to see your desktop.

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Perform the following operations:

Step-1: Click the icons on quick launch bar and see what happens.
Step-2: Click on the clock on the system tray. What do you see?
Step-3: Now, click on show desktop button.

Start Button

Start button is used to do many activities.

When you left-click on the Start button, a menu appears on the screen. This is called the **Start menu**. Start menu contains many options. Some of them are given as follows :

All Programs : It contains shortcuts to open a list of programs.

Click the Start button and then click **All Programs**. A list appears with many options. You can click the program you want to open. You can go back to Start menu by clicking the **Back** option.

Windows 7 Start menu

Shut down : You close Windows by using this option. This option in the Start menu closes all the opened programs and completely turns off your computer.
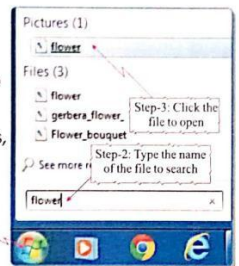

To shut down your computer, just click the **Start** button and then click the **Shut down** option.

Search programs and files : This option is used to search or find things in the computer.

To find a saved file, follow the given steps :

Step-1: Click the **Start** button 🔵.

Step-2: Type the name of the file you want to search in the search box.

A list of all the programs, files, pictures, etc. with similar names appear.

Step-3: Click the required file to open it.

Help and Support : You find different help topics related to Windows in this option.
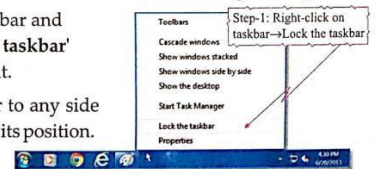
Do You Know?

Sticky Notes is an option in the Start menu to create short text notes. It is just as writing a note on a paper as a reminder for ourselves. If you do not find this in the Start menu, click Start button → All Programs → Accessories → Sticky Notes.

Changing The Position Of Taskbar

You can change the position of the taskbar and place it at any one of the four sides of the screen. **To change the position of the taskbar,** follow the given steps:

Step-1: Right-click on the taskbar and uncheck the **'Lock the taskbar'** option by clicking on it.

Step-2: Now, drag the taskbar to any side of the screen to change its position.

Step-2: Drag the taskbar to any side

Practical in Computer Lab

Drag the taskbar and place it at the top of the screen.

GADGETS

Gadgets are mini-programs that provide information at a glance and also provide access to frequently used tools. For example, **Picture Puzzle, Slide Show, Feed Headlines, Clock** and **Calendar** are all gadgets. Windows 7 desktop displays gadgets on the right side of the screen. You can add or remove the gadgets on your desktop according to your choice.

gadgets

Practical in Computer Lab

Add the gadgets 'Clock' and 'Calendar' on your desktop.
Step-1: Right-click on the desktop.
Step-2: Select Gadgets from the pop-up menu.
Step-3: Double-click the gadgets 'Clock' and 'Calendar'.

Multiple Choice Questions

Tick (✓) the correct option.
1. Name the bar located at the bottom of the desktop.
   (a) taskbar ☐ (b) icons ☐ (c) gadgets ☐
2. Which of the following is not an operating system?
   (a) UNIX ☐ (b) Windows 7 ☐ (c) WordPad ☐
3. Quick launch bar is present on the ....
   (a) taskbar ☐ (b) Start menu ☐ (c) desktop background ☐

SHORTCUT BUTTONS IN A WINDOW

Have you noticed some buttons on the upper right corner of an open window? The buttons are as shown below:

Minimize button: If you click this button, the window shrinks to the taskbar.

Maximize button: It is used to increase the size of the window to its maximum.

Restore Down button: When you maximize a window, the Maximize button looks like this. It resizes the window back to its original size.

Close button: You close a window by clicking this button.

WINDOWS 7 ACCESSORIES

You have already used three of the Windows Accessories – Paint, Notepad and WordPad. Let us now learn to use Windows 7 Calculator.

Calculator

You see a calculator at your home. It is used to do calculations. You solve sums on it.

Windows 7 also has a **Calculator** to solve simple problems.

To solve sums using Windows 7 Calculator, follow the given steps:

Step-1: Click **Start** button.
Step-2: Click **All Programs**.
Step-3: Click on **Accessories**.
Step-4: From the submenu, click on **Calculator**.

The Windows 7 Calculator is displayed.

You see buttons for digits 0 to 9 and ⊞ (add), ⊟ (subtract), ⊠ (multiply) ⊡ (divide) and = (equal to) to do calculations.

For example, to solve 5 + 2, click 5, then click ⊞ and then click 2. Click = to get the result.

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Find the value of (1) 54 +61 and (2) 100-40 using Calculator program.

Guidelines:

(1) 54 + 61

Step-1: Click on the buttons 5 and 4. You see 54 is displayed.
Step-2: Click on + button.
Step-3: Click on the buttons 6 and 1. You see 61 is displayed.
Step-4: Click on = button to see the result.

(2) 100 – 40

Step-1: Click on the buttons 1, 0 and 0. You see 100 is displayed.
Step-2: Click on – button.
Step-3: Click on the buttons 4 and 0. You see 40 is displayed.
Step-4: Click on = button to see the result.

▪ TOUCHSCREEN DEVICES

You have learnt that a **touchscreen** device permits you to control it with just a simple touch of your finger to input information. A touchscreen is used in devices like Tablets, Smartphones, Computers, ATMs and Kiosks. Following are some examples of different touchscreen devices.

touchscreen Tablet   touchscreen mobile   touchscreen monitor

▪ TABLET COMPUTER

A **Tablet** computer or simply a Tablet is a device that has a touchscreen. It comes in a variety of shapes, sizes and features.

Features Of A Tablet

You know that a Tablet has the ability to do most functions that we do on a normal computer. Tablets are mainly used to watch movies, play games, read e-books, listen to songs, search for information, send and receive e-mails and maintain records. It has a **virtual keyboard** which is useful for online chatting, social networking and sending e-mails.

▪ ANDROID AS AN OPERATING SYSTEM

You have learnt about operating systems like **MS Windows XP** or **MS Windows 7** that controls the overall activities of a computer. It is the **Android**, a mobile operating system that operates a Smartphone, Tablet or other digital mobile devices.

Android is a **Linux based operating system** developed by Google for touchscreen devices such as a Tablet or Smartphone.

Android was founded by **Andy Rubin** in **October 2003** in California. The beta version of

logo of Android operating system

the Android Software Development Kit (SDK) was released in 2007. The first commercial version, Android 1.0, was released in September 2008. **Android 5.0 Lollipop** is the latest version released in November, 2014.

Features Of Android Operating System

▪ Android has a very user friendly and attractive look with colourful themes.

▪ Android home screen can be easily personalised according to the user's choice.

▪ Android home screen is made up of several pages which can be swiped back and forth. Just a swipe down from the top of the screen will enable you to see all your notifications at one place like a meeting, missed call, memo and messages.

▪ Android devices are battery-powered. It is designed to keep power consumption at its minimum. When an application is not in use, it is automatically suspended, so as not to consume battery power.

Do You Know?

Smartphone is a touchscreen mobile phone, in-built with a mobile operating system with more advanced capabilities than an ordinary phone.

Key Points

▪ An operating system is the manager of the computer system.

▪ An operating system acts as an interface between you and the computer system.

▪ Windows operating system is one of the most popular software in the world.

▪ Windows 7 desktop contains icons, taskbar, desktop background and gadgets.

▪ Taskbar contains Start button, quick launch bar, system tray and show desktop button.

▪ A touchscreen device permits you to control it with just a simple touch of your finger.

▪ Tablet has many advantages when compared to a normal computer.

▪ Android is an operating system for touchscreen devices.

Exercise-2

LEARN TO USE MS WINDOWS 7

A. Fill the blanks with appropriate answers:

1. Windows is developed by_____Corporation
2. _____button shrinks the window to the taskbar.
3. Computer can arrange itself the icons if the_____option is selected.
4. You can find help for any program using the_____option.
5. _____is an option to create short text notes as a reminder.

B. Write the answer in one word

1. These are the mini-programs which provide information at a glance._____
2. This is displayed on a system tray._____
3. A long horizontal bar at the bottom of the desktop._____
4. The first screen that appears when we start the computer._____
5. This is a small picture, used to open a program, file or folder._____

C. Answer the following questions.

1. Give two examples of operating system.
2. What is the use of tablet?
3. How touch screen device is used?
4. What is the use close button?
5. What is desktop background?
6. What is an icon?
7. Who developed Microsoft?
8. What are the advantages of a Tablet as compared to a computer?
9. How do you select an icon
10. What does a taskbar contain?

D.H OTS(Higher Order Thinking Skills)

1. Vijay wants to search a folder named "MY PROJECT" on his computer. He has forgotten the location of the folder, which option of the Start button will help him to search the required file?

2. Sumit is using the computer for the first time. He can not understand small pictures present on the desktop. What are these pictures called? What are they used for?