



1

FUNDAMENTALS OF COMPUTERS



CHAPTER OBJECTIVES

- ❁ Characteristics of a Computer
- ❁ Differences between a Computer and a Human Being
- ❁ Application Areas of a Computer
- ❁ Types of Computers

Everyday many machines are seen and used by us like televisions, washing machines, mobile phones etc. All these are electronic machines. The computer is also an electronic machine. It works on electricity. Today, it is an essential part of our lives. We can find computers almost everywhere like schools, offices, homes, shops, malls, hospitals, railway stations, airports and banks.



CHARACTERISTICS OF A COMPUTER

Although a computer is a man-made machine, it has many useful and wonderful characteristics which makes it smarter. Let us discuss some such features:

1. ACCURACY



A computer always produces accurate results, while working.

2. STORAGE



A computer has a large storage capacity and can store huge amounts of data.





3. VERSATILITY



A computer is a versatile machine. It can perform variety of tasks, all at once.

4. SPEED



A computer is a fast machine. It takes milliseconds or nanoseconds to perform a task.

5. DILIGENCE



A computer can work for long periods without getting tired.

6. I.Q.



A computer has no I.Q. It needs commands to function.

7. DECISION MAKING



A computer cannot make or take decisions on its own

8. EMOTIONS



A computer has no emotions or feelings.

DIFFERENCES BETWEEN A COMPUTER AND A HUMAN BEING

They are many difference between computer and human being. Some of which are as follows :

A Computer

- ❖ A computer works very fast.
- ❖ A computer needs electricity to work.
- ❖ A computer does not make mistakes.
- ❖ A computer needs instructions to work.
- ❖ A computer does not get tired.
- ❖ A computer cannot take decisions on its own.
- ❖ A computer has no feelings.

A Human Being

- ❖ A man cannot work as fast as a computer
- ❖ A man does not need electricity to work.
- ❖ A man can make mistakes.
- ❖ A man can work without instructions.
- ❖ A man gets tired.
- ❖ A man can takes decisions on his own.
- ❖ A man has full emotions and feelings.





APPLICATION AREAS OF A COMPUTER

Computers are found almost everywhere. Wherever you go, you will see a computer being used. Some applications of computers in various fields and their uses are given here.

SCHOOLS

- ❖ Used in admission process.
- ❖ To prepare the lesson plans, time table, marksheet and report cards.
- ❖ To keep records of the students and school staff.
- ❖ To keep records of books in the library.
- ❖ To teach students in preparing presentations.
- ❖ In making class notes and project work.



In School

!IMPORTANT FACT

Messages sent and received through computers are known as e-mails.



In an Office

SHOPS

- ❖ To maintain stock records.
- ❖ To prepare and print bills.
- ❖ To store customer information.
- ❖ To provide description of sales of various things.

OFFICES

- ❖ To type and print documents.
- ❖ To keep records of employees.
- ❖ To send and receive messages.
- ❖ To do video-conferencing.
- ❖ To store official data and information for long periods.



In a Shop





HOMES

- ❖ To buy goods from online shops.
- ❖ To listen music and watch movies.
- ❖ To plan monthly expenses.
- ❖ To read e-newspapers.
- ❖ To play games and do homework.



At Home



Inside a Bank

BANKS

- ❖ To maintain the particulars and accounts of the customers.
- ❖ To keep records of the transactions.
- ❖ To share important details with customers.
- ❖ To withdraw money from ATM's.
- ❖ To send notifications about any transaction to a customer.

RAILWAY STATIONS

- ❖ To book and cancel railway tickets.
- ❖ To keep records of passengers.
- ❖ To provide information about time schedule of trains.
- ❖ To keep track of location, speed and direction of the train.



Ticket Counter



In a Hospital

HOSPITALS

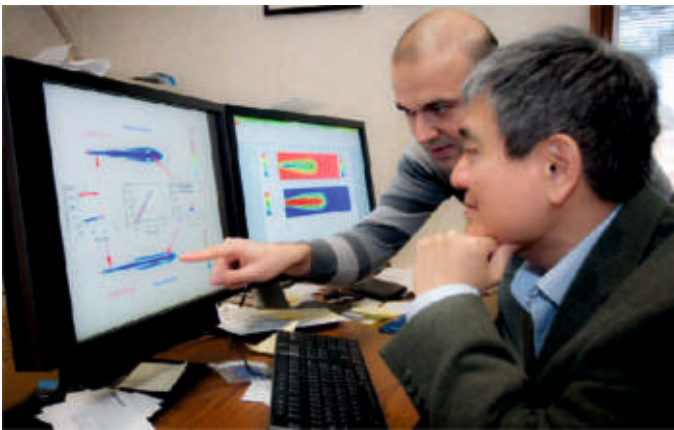
- ❖ To keep records of the doctors and their availability timings.
- ❖ To keep record of the patients, their diseases and medicines.
- ❖ To prepare medical reports and bills.
- ❖ To help in performing surgery.





AIRPORTS

- ❖ To book and cancel airplane tickets.
- ❖ To keep records of passengers.
- ❖ To provide information about the time schedule of airplanes.
- ❖ To keep track of location, speed and direction of airplanes.



For Designing

FILM INDUSTRY

- ❖ To create animated movies.
- ❖ To create special effects.
- ❖ To make cartoons and add audio in it.

SPACE RESEARCH AND DEFENCE

- ❖ Getting information about space.
- ❖ Launching and controlling satellites, rockets and missiles.
- ❖ Testing weapons and sharing confidential details.
- ❖ Doing research, designing robots and forecasting weather.



At Airports

DESIGNING

- ❖ To design cars, airplanes and other machines.
- ❖ To design buildings, houses and flyovers.
- ❖ To design and build web sites.
- ❖ To design clothes, shoes, etc.



Inside Space Research Centre





TYPES OF COMPUTERS

in In the first instance, the computer was a big machine which needed a lot of space and air-conditioned environment. With the passage of time, it went through many changes and ultimately emerged as an efficient and a smart machine.

Wi-Fi Computers of various types and sizes are available in the market today.

DESKTOP COMPUTER

f Computers that are kept on desks or tables are called desktop computers.

It works on electricity.

Twitter It has a separate keyboard and a mouse.

They are big in size and heavy, so they cannot be carried from one place to another.

Shopping They are also called **Personal Computers** (PC).



Desktop Computer

LAPTOP COMPUTER

WhatsApp Small computers that can be kept on laps are called laptop computers. They can be easily carried while travelling.



Laptop Computer

They are smaller in size as compared to desktop computers.

They can also work on a battery.

Very thin and light weight laptops are also called **Notebooks**.

TABLET COMPUTER

Tablet computers are smaller in size than laptop computers.



Tablet Computer

They can be easily held by hand.

Android It uses a special pen to write and make selections directly on the screen which is called **Stylus**.

Instagram It works on a re-chargeable battery.





PALMTOP COMPUTER

Small computers that can be kept on our palms are known as palmtop computers.

They can also be placed inside the pocket. They can be carried along easily.

It is used to make calls, send and receive messages and store phone numbers.

It can be used to search information, send and receive mails, images and videos.



Palmtop Computer

Snapshot

- ◆ Computer is an electronic machine that runs on electricity.
- ◆ A computer works tirelessly and never commits any mistake.
- ◆ A computer is a versatile and fast machine.
- ◆ A computer can be found in schools, offices, hotels, railway stations, airport and banks.
- ◆ Various types of computers are desktop computers, laptop, tablet and smartphones.



CHECK YOUR KNOWLEDGE



A. Tick (✓) the correct option:

1. A computer is an machine.

a. Fast <input type="checkbox"/>	b. Slow <input type="checkbox"/>	c. Electronic <input type="checkbox"/>
----------------------------------	----------------------------------	--
2. A computer always produces results.

a. Wrong <input type="checkbox"/>	b. Accurate <input type="checkbox"/>	c. None <input type="checkbox"/>
-----------------------------------	--------------------------------------	----------------------------------
3. Computers can

a. make mistakes <input type="checkbox"/>	b. work quickly <input type="checkbox"/>	c. Both a and b <input type="checkbox"/>
---	--	--
4. Desktop computers are kept on

a. Laps <input type="checkbox"/>	b. Palms <input type="checkbox"/>	c. Desks <input type="checkbox"/>
----------------------------------	-----------------------------------	-----------------------------------
5. Computer has a touch screen.

a. Tablet <input type="checkbox"/>	b. Laptop <input type="checkbox"/>	c. Both a and b <input type="checkbox"/>
------------------------------------	------------------------------------	--





B. Fill in the blanks with the help of given hints:

(Hints : pocket storage library IQ electricity)

1. A computer works on
2. A computer has large capacity and can store huge amounts of data.
3. A computer has no
4. Computers are used to keep records of books in a
5. Palmtops can also be carried inside the

C. State True or False:

1. Computers have become an important part of our daily life.
2. A computer never commits a mistake.
3. Computers are used to create special effects and animations.
4. Computers are used in designing and printing of books and magazines.
5. Desktops can be carried along easily.

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

D. Look at the pictures below and write the tasks for the following:



.....

.....



.....

.....





E. Give one word answers for the following:

1. Where is a computer used to keep records of employees ?

.....

2. Palmtop computer is also known as ?

.....

3. How much time does a computer take to perform any given task ?

.....

F. Answer the following questions:

1. List two differences between a computer and a human being.

.....

.....

2. Give any two uses of computer in banks.

.....

.....

3. Give any two uses of computer in shops.

.....

.....

4. List the various types of computers.

.....

.....



My Activity



A. Find the words with the help of given clues and complete the puzzle:

1. S	2. T							E
	3. L							P
	T							
4. D								E
5. V								E

Hints:

1. The capacity to store large amounts of data for future use in computers.
2. It is a small personal computer that is usually held in the hand.
3. This computer can be kept on the lap and can be easily carried while traveling.
4. A computer can work for long hours without getting tired.
5. A computer can perform a variety of tasks all at once.

B. Identify the pictures below. Unscramble the letters and make meaningful words which represents a type of computer.



PPMTLOA



TTBELA



AOTPLP



POTSEKD

