

The background is a deep blue gradient. On the left side, there are several interlocking gears of different sizes, some with a glowing effect. To the right of the gears, a complex network graph is visible, consisting of numerous small white dots connected by thin white lines, forming a web-like structure. The overall aesthetic is technological and modern.

Module 1 Information Technology Fundamentals

1. What is a computer?
2. Differentiate data from information.
3. What are the four basic functions of the computer?

What is a Computer?

- ❑ By modern definition, a **computer** is an electronic device that accepts (inputs), processes, stores, and outputs data at a high speed according to programmed instructions.
- ❑ A computer is made up of five basic elements:
 - **Electronic** – means all computers are powered by electricity.



- **Programmable** – computers follow set of instructions in order to operate.
- **Storage** – computers are able to store huge amount of data for future use.
- **Retrieve** – computers are able to get back or return whatever it has stored.
- **Process** – computers are able to transform or manipulate data it has stored into useful information.



Data vs Information

- **Data** is raw, unprocessed facts. It has the potential to become useful information, but first it has to be manipulated and transformed.
- **Information** is processed data.



Functions of Computer

All computers perform the following **four basic functions**:

- **Input** – the procedure of feeding or entering data into a computer.
- **Process** – the operation of manipulating and transforming data into something useful. This function is done through programs.



- **Output** – the result of the processing function.
- **Storage** – computers save data and outputs for later use.



Capabilities and Limitations

Capabilities of a Computer

1. It can process data quickly.
2. It can perform operations tirelessly.
3. It can give accurate results depending on the instructions and commands given.
4. It can store, recall, and retrieve information.
5. It can confirm and verify the accuracy of the information.
6. It can perform multi-tasks.



Limitations of a Computer

1. It needs human intervention.
2. It has a short life span.
3. It cannot formulate information on its own.
4. The information or results generated are user dependent.
5. It can never replace the capabilities of the human brain.