1.1 What is a computer?

A computer is an electronic device which processes raw data to meaningful information. Computer takes raw data as input from the user and processes. It takes control of a set of instructions, and gives the result (information) to the user. The processed information can be saved for future use.

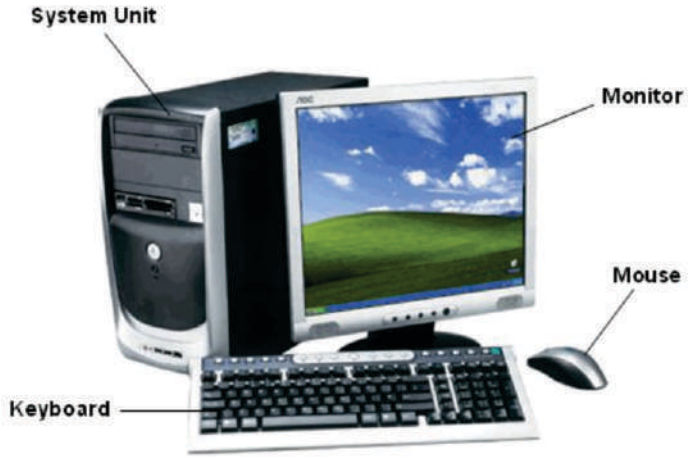

Figure 1.1

People do different types of activities daily. To do a specific task, we have to follow a set of steps. Let's try to understand set of activities.

Example 1

Cooking rice (see Figure 1.2).

Figure 1.2

Example 2

Embroidery (see Figure 1.3).

Figure 1.3

We use computers to do different tasks. Computers also follow the same set of steps, such as input, process and output to do a specific job. As we discussed before, a computer takes raw data, processes it and gives the output to the user.

1.2 What's Data?

Data means raw facts entered in to a computer for processing. Data can be numbers, letters or symbols.

1.3 What's Information?

Information is organised or classified data which has meaningful values.

1.4 Information Processing Cycle

The three terms, input, process and output are interconnected. Data flow from the input device to the processing device and to the output device. This flow of information follows the Information processing cycle (see Figure 1.3).

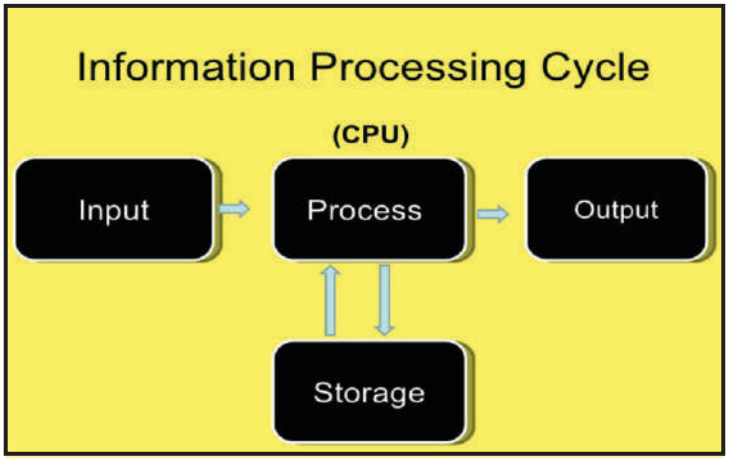

Figure 1.4

Input

Entering or feeding data to a computer is known as input. Input Devices are used to input or feed data to a computer. e.g.: Keyboard, mouse etc.

Process

Converting raw data into useful information inside the CPU (Central Processing Unit) is called the process. In this step input data is changed to a more useful form.

Output

Producing the result in the form of information is known as output. Output devices are used to take processed information from the computer. e.g.: Monitor, Printer etc.

Storage

Storing data or instructions in a computer's memory and use them when required is known as storage. Storage devices are used to save our work for future use. e.g.: Hard disk etc.

Look at the examples given below.

Example 1

Adding two numbers (see Figure 1.4).

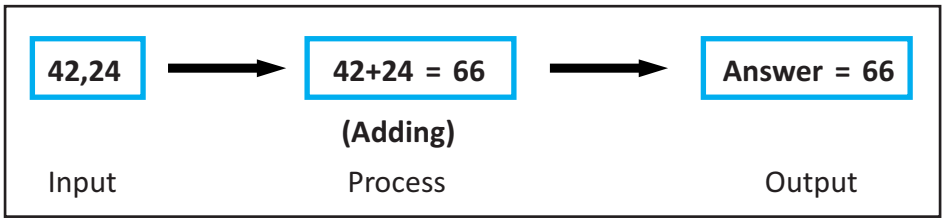

Figure 1.5

Example 2

Arrange the given numbers in ascending order (see figure 1.5).

56, 89, 67, 90, 95, 87, 80, 75

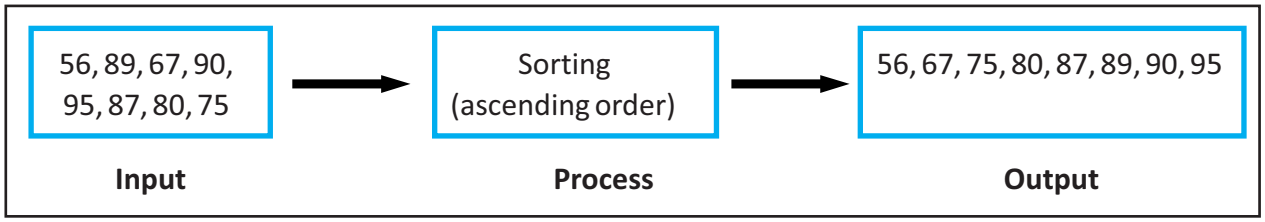

Figure 1.6

QUESTIONS

Write brief answers.

1. What is a computer?
2. What is data?
3. What is information?
4. Think of a mathematical problem and write the steps to solve the problem.
5. Draw the Information Processing Cycle.