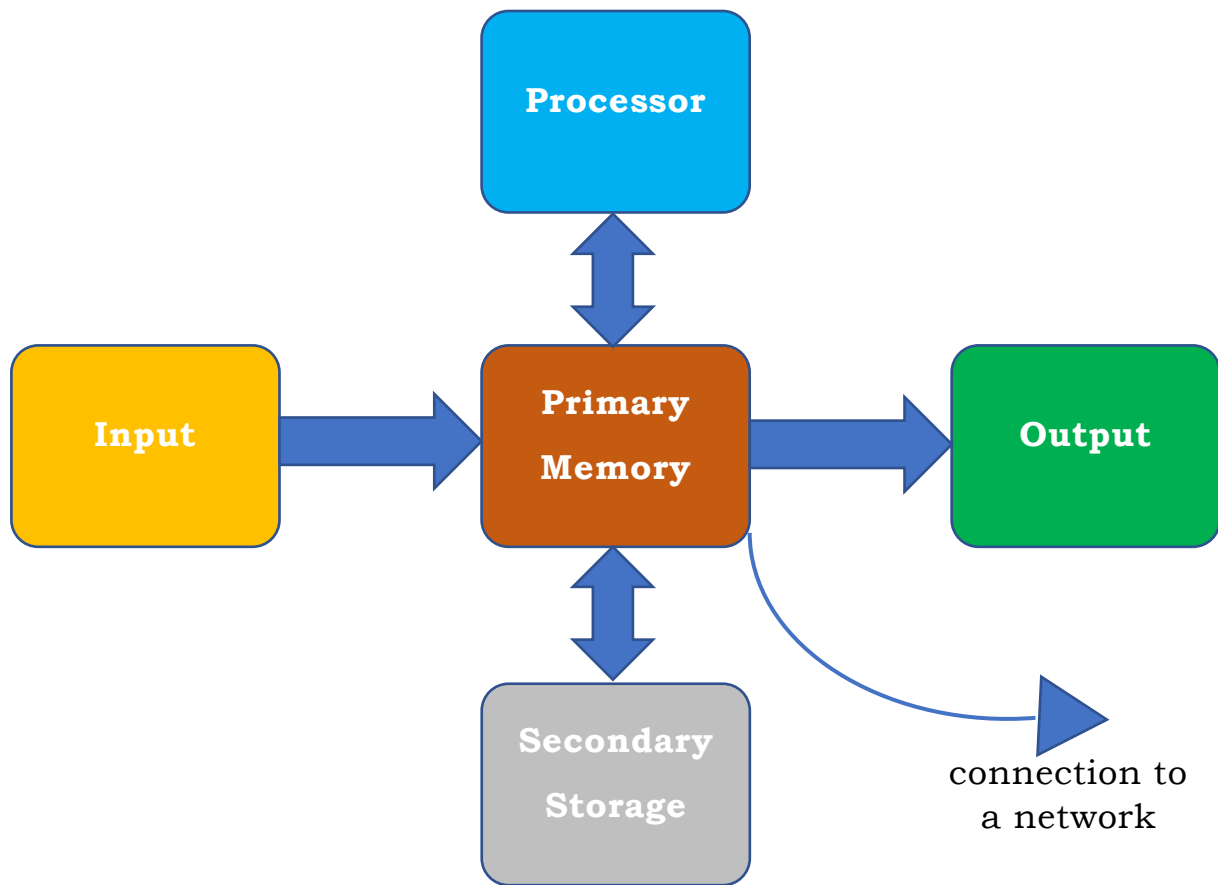


Main Modules of a Computer

The following diagram shows the main modules of a computer.



A brief description of each module is found hereunder.

Input: all input (i.e. numbers, letters, musical notes, instructions, etc.) are entered from the module shown in yellow. All input is transformed in ones and zero as this is the only language that digital computers understand.

Primary memory: this is the working area of the computer. It holds the programs being currently executed and the data being worked upon. This part is (mostly) volatile i.e. when the computer is switched off all the programs and data within it disappears.

Processor: the processor executes the commands given by the user and the instructions that form the programs found in primary memory. It is called the brains of the computer.

Secondary storage: this part holds all the programs held by the computer. It is not volatile. When the computer is switched off the

programs and data in secondary storage is not wiped off. It remains there for later use.

Output: this module shows the results and messages that the computer wants to communicate to the user.

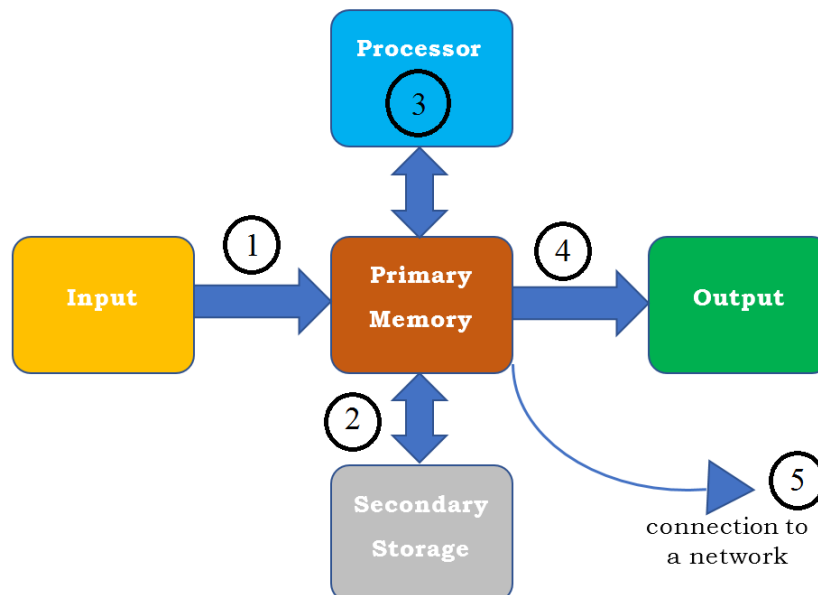
The input unit and the output unit together form the I/O subsystem. This unit is responsible for:

- accepting all the necessary inputs
- placing these inputs in primary memory
- waiting for the processing to be done
- copying the results from primary memory to an output device

Buses: these are represented by blue arrows in the diagram. They are the paths on which data and instructions travel from one place to the other.

This is the procedure followed inside the computer when an email is sent.

1. The user double clicks on the email program.
2. The email program opens.
3. The user writes the email.
4. The user prints the email.
5. The user sends the email.



Question 1:

State whether the following actions are (i) input, (ii) processing, (iii) output or (iv) communicating with the network.

- a) The expression $3+1.7$ is calculated.
- b) The user enters his age.
- c) An email is sent
- d) The computer displays a picture on the screen.
- e) A web-page is downloaded on your computer.
- f) The number of words in a document is calculated.
- g) The user chooses an option by touching the screen.
- h) Music is played in the speakers of the computer.

Question 2: Say whether each of the following statements is true or false:

- a) When you open a program a copy of the program goes from secondary storage to primary storage.
- b) Primary memory has the ability to execute programs.
- c) The pen drive is one example of secondary storage.
- d) If you are typing a letter and you save it will be copied to primary storage.