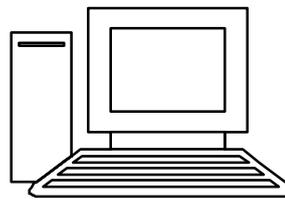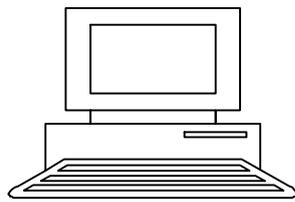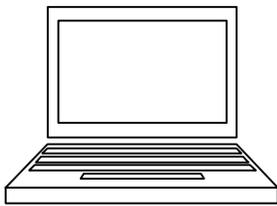# DW N° 01 (Introduction)
The Computer and Its Components: General Overview

1. Central Unit : Contains the components.

Definition: Complete the following definition

A vital element of a computer, the **central processing unit (CPU)** materializes as a **central processing unit casing**, enclosing all essential components of a **computer** except for the **monitor**, the **keyboard,** and the **mouse**.

a- Some forms of the central processing unit (CPU) include:

Laptop	Desktop	Tower	All-in-One ....

2. Input Devices (examples): Used to input information into the central processing unit (CPU).

a- Input Devices (examples): These devices are used to input information into the central processing unit (CPU).
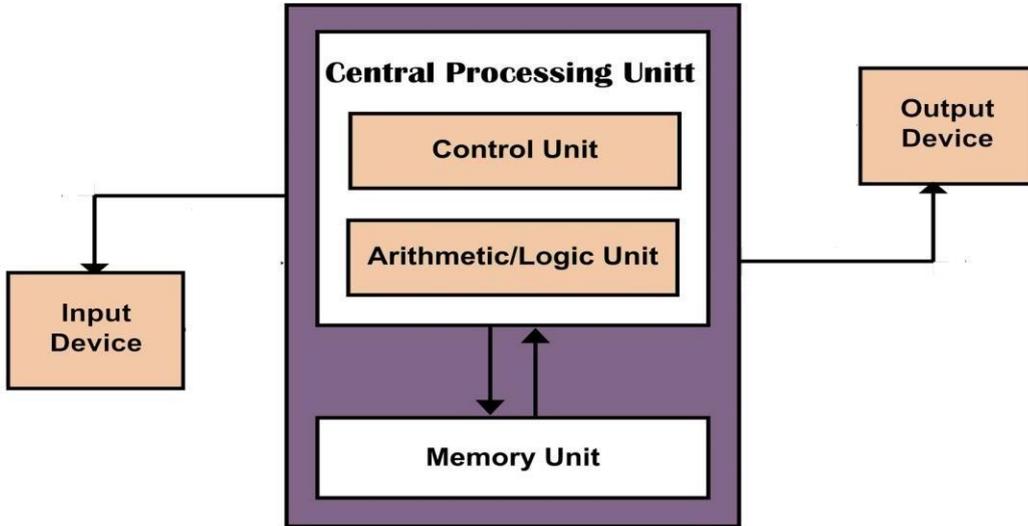
Allows for the digitization of paper documents and the retrieval of printed content in the form of a text file.	A type of pencil that allows you to write on a graphic tablet.	It is an essential tool for navigation in graphical interfaces. It is represented on the screen by a pointer..	It is the primary means of communication with the PC. It allows for the input of letters and numbers as well as navigation.
Scanner	Stylus Pad	Mouse	Keyboard

b- Output Devices (Examples): Used to output the result.

It allows projecting the content of the screen onto a screen or whiteboard.	They allow for the reproduction of sound. They have their own amplifier. Their power is measured in Watts.	There are two types: the most common ones are inkjet and laser .	It looks like a television set. Like the latter, it allows for displaying images in color but with a higher level of detail.
Data show	Speakers	Printer	Screen or monitor

The Von Neumann Architecture :
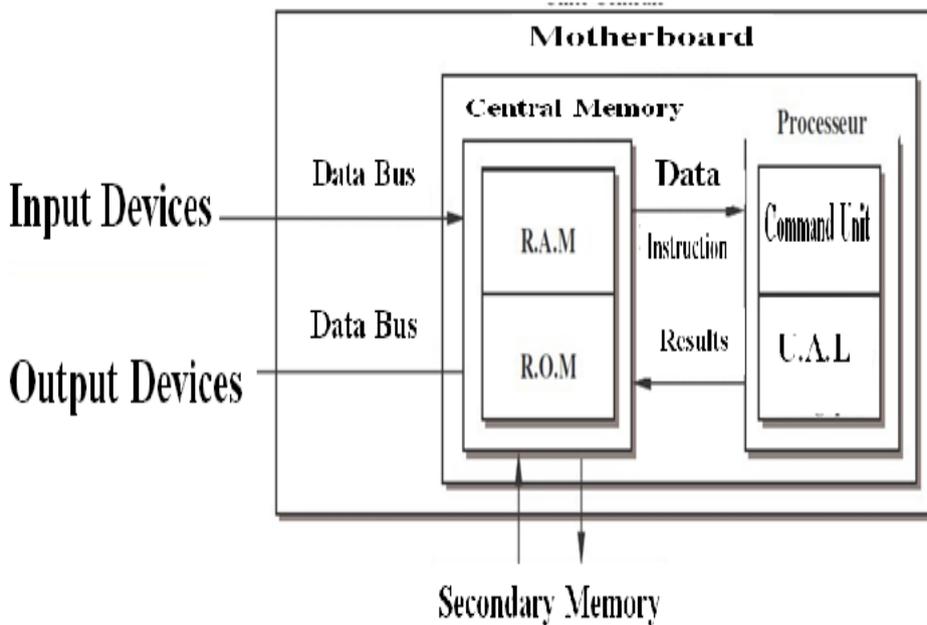
A°/ Complete the diagram:

Von Neumann Architecture

• Central Processing Unit (CPU), also known as processor or microprocessor, is responsible for executing programs.
• The CPU consists of an Arithmetic and Logic Unit (ALU) and a Control Unit.

The Arithmetic and Logic Unit performs elementary operations (addition, subtraction, multiplication, etc.). The Control Unit manages operations on memory (read/write) and operations to be performed by the ALU based on the current instruction being executed.
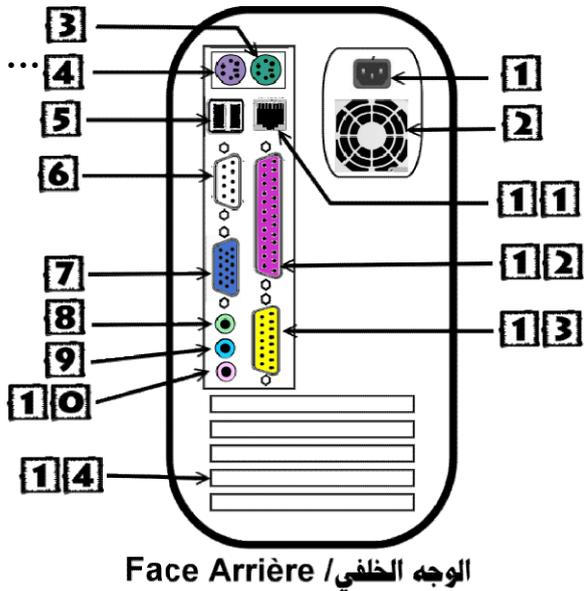
B°/ Complete the following diagram:

b- Example of the central unit on the outside:
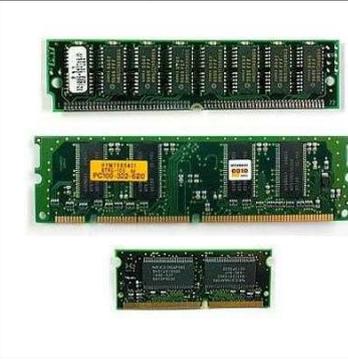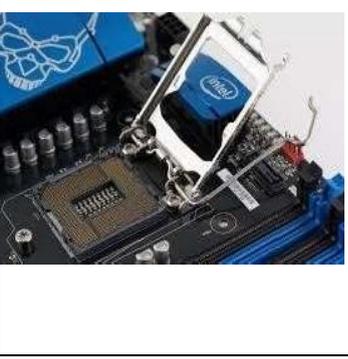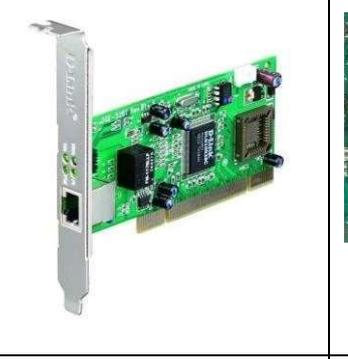
• Front Panel::

Number   **Designation**

  1 CD/DVD Burner
  2 CD/DVD Drive
  3 Floppy Disk Drive (old)
  4 Memory Card Reader
  5 Power Button
  6 Reset Button
  7 Power Indicator Light
  8 Hard Disk Indicator Light
  9 Microphone Jack
  10 Headphone Jack
  11 Universal Serial Bus (USB) Port

• Back Panel:

Number   **Port**   **Attached Component**

1 Power Port Power Cable
2 Fan
3 PS/2 Port (Green)   Old Mouse Connector
4 PS/2 Port (Purple)   Old Keyboard Connector
5 USB Port   Keyboard, Mouse, Scanner,
                           Webcam, Printer, Flash Drive, …
6 Com Port (Serial)   Mouse, Modem
7 VGA Port (Blue)   Monitor, Projector
8 Sound Output (Green)   Headphones, Speakers
9 Sound Input (Blue) Radio
10 Microphone Input (Pink)   Microphone
11 RJ 45 Port   Network Cable
12 LPT Port (Parallel)   Printer
13 Game Controller Port   Game Controller
14 Expansion Slots   Interface Cards (Sound Card,
 Graphics Card,Network Card …)

Face Arrière /الوجه الخلفي

c- Internal Components

CD/DVD Burner	Drive Floppy Disk Drive and Memory Card Reader	Power Supply	Motherboard
Sound Interface	Card RAM	Microprocessor	Hard Disk
Graphic card	CPU socket	Network card	Chipset

- What is a computer system? A computer system is a combination of
software and hardware components working together to perform a task or application.

-A good knowledge of hardware allows: Having a good understanding of hardware helps in avoiding
errors and optimizing performance in programs.

-Give some examples of input/output devices at the same time:
Flash drive, CD/DVD, Modem, Hard drive,...