

Q1: Internal Computer Components (Inside the System Unit)

The **system unit** is the main case of a computer that contains the internal components.

Component	Function
Motherboard	The main circuit board that connects all computer components.
CPU (Central Processing Unit)	Processes data and controls all computer operations.
RAM (Random Access Memory)	Temporarily stores data and programs currently in use.
Hard Disk Drive (HDD) / Solid State Drive (SSD)	Stores the operating system, software, and user files permanently.
Power Supply Unit (PSU)	Supplies electrical power to all computer components.
Heat Sink and Fan	Cool the CPU and prevent overheating.
Optical Drive	Reads and writes CDs and DVDs (if installed).
Graphics Card (GPU)	Processes graphics and displays images on the monitor.
Network Interface Card (NIC)	Connects the computer to a network or the Internet.
CMOS Battery	Maintains BIOS settings and the system clock.

Q2: Connecting Computer Components Correctly

Follow these steps when connecting computer components:

1. Turn off the computer and unplug the power cable.
2. Install the motherboard into the system case.
3. Insert the CPU into the CPU socket carefully.
4. Apply thermal paste (if required) and install the CPU fan.
5. Insert the RAM modules into the memory slots.
6. Install the HDD or SSD and connect the SATA data and power cables.

7. Install the power supply unit and connect power cables to the motherboard and drives.
 8. Install expansion cards (such as the graphics card) if needed.
 9. Connect front panel cables (Power Switch, Reset Switch, USB, Audio).
 10. Check that all cables are firmly connected before closing the case.
-

Q3: Assembling a Computer System

1. Gather all the required computer components and tools.
 2. Install the power supply into the computer case.
 3. Mount the motherboard securely inside the case.
 4. Install the CPU and cooling fan.
 5. Insert the RAM modules.
 6. Install the storage drive (HDD or SSD).
 7. Install any expansion cards.
 8. Connect all power and data cables.
 9. Close the computer case.
 10. Connect external devices (monitor, keyboard, mouse, speakers, and power cable).
 11. Switch on the computer and test that it starts correctly.
-

Q4: Importance of Correct Computer Assembly

- Ensures the computer operates properly.
- Prevents damage to hardware components.
- Improves system performance.
- Reduces the risk of overheating.
- Makes troubleshooting easier.
- Extends the lifespan of computer components.
- Ensures stable and reliable operation.

Q5: Safety Precautions During Computer Assembly

1. Switch off the computer and disconnect it from the power source.
2. Wear an anti-static wrist strap or discharge static electricity before handling components.
3. Handle components by their edges; avoid touching electronic circuits.
4. Work on a clean, dry, and well-lit surface.
5. Use the correct tools, such as the proper screwdriver.
6. Keep liquids away from the computer.
7. Do not force components into their slots.
8. Ensure all cables are connected correctly.
9. Keep screws and small parts in a safe place.
10. Test the computer before fully closing the system unit.

Conclusion: Correct computer assembly and safe handling ensure that a computer functions efficiently, reduces the risk of hardware damage, and extends the life of its components.