Listening comprehension: Inside your computer

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1.The BIOS is most like the computer's

A Brain
B Eyes and hands
C Stomach
D Lungs
E None of the above

2.The CPU can handle _____ of instructions a second

A Thousands
B Millions
C Billions
D Gazillions
E None of the above

3.Programs are encoded and stored in memory as

A 1's and 0's
B Raw text
C HTML
D Electrons
E All of the above

4.The CPU's job is

A To store information
B To deal with input and output from peripherals
C To edit files in memory
D To fetch and execute instructions
E All of the above

5.The critical components of your computer's architecture are:

A Wires, Plastic, Silicon
B Programs, Bits, Bytes, HTML
C Peripherals, BIOS, CPU, Programs, Memory
DMouse, Motherboard, Integrated Circuits, Wires
ENone of the above

6.BIOS stands for

ABiological Input Operating System
BBasic Input Output System
CBasic Integer Operating System

DBasic Input Output Software
ENone of the above

7.Why are programs saved in a different format than the human readable programming languages that they are written in?

- Efficiency: Machine code is optimized for execution by the computer's CPU, allowing programs to run faster and more efficiently.
- Portability: Compiled code can be run on different platforms without needing to have the original source code or the specific programming language compiler installed.
- Security: Compiled code can be more difficult to reverse-engineer than source code, providing a level of protection for intellectual property and sensitive algorithms.
- Integration: Compiled code can interface directly with hardware and system resources, providing more direct control and access than interpreted code.

8.What are some of the programs that your computer is running even when you’re not touching it?

- Operating system processes: Background processes and services necessary for the functioning of the operating system.
- Antivirus software: Continuous monitoring for threats and malware.
- System updates: Background processes checking for and installing updates to the operating system and installed software.
- Network services: Processes managing network connections and communication.
- Backup utilities: Scheduled backups or synchronization tasks running in the background.

9.What are some of the things your computer needs to know in order to respond properly to a mouse click?

- The location of the mouse cursor: To determine where the click occurred on the screen.
- The type of mouse event: Whether it's a single click, double-click, right-click, etc.
- The application in focus: To send the click event to the appropriate application or window.
- The action associated with the click: Such as opening a file, selecting an item, or executing a command.

10. Define at least 5 pieces that you can find inside the computer (explain the use and the materials)

- CPU (Central Processing Unit): The "brain" of the computer, responsible for executing instructions, performing calculations, and controlling other components. It's typically made of silicon and metal.
- RAM (Random Access Memory): Temporary storage used by the CPU to store data and program instructions that are actively being used. RAM is made up of integrated circuits and silicon.
- Motherboard: The main circuit board that houses the CPU, RAM, and other essential components. It provides the electrical connections between these components and peripherals. Motherboards are usually made of fiberglass and have copper traces.
- Hard Drive (or SSD - Solid State Drive): Storage devices used to store data and programs permanently. HDDs have spinning magnetic disks, while SSDs use flash memory chips. Both are encased in metal or plastic.
- GPU (Graphics Processing Unit): Responsible for rendering images and graphics. GPUs are composed of numerous smaller processing units and memory, often made of silicon and metal.