\* \*\*Q:\*\* What is the brain of the computer?

\* \*\*A:\*\* CPU (Central Processing Unit)

\* \*\*Q:\*\* What is the primary function of the CPU?

\* \*\*A:\*\* Executes instructions, performs calculations, and controls the flow of data.

\* \*\*Q:\*\* What are the two main components of the CPU?

\* \*\*A:\*\* Control Unit (CU) and Arithmetic Logic Unit (ALU)

\* \*\*Q:\*\* What is RAM?

\* \*\*A:\*\* Random Access Memory - temporary storage for data and programs currently in use.

\* \*\*Q:\*\* What is the difference between RAM and ROM?

\* \*\*A:\*\* RAM is volatile (data is lost when power is off), ROM is non-volatile (data is retained).

\* \*\*Q:\*\* What is the purpose of the motherboard?

\* \*\*A:\*\* Connects and supports all the components of a computer.

\* \*\*Q:\*\* What is a hard drive?

\* \*\*A:\*\* Primary storage device for long-term data storage.

\* \*\*Q:\*\* What is the difference between HDD and SSD?

\* \*\*A:\*\* HDD uses mechanical spinning platters, SSD uses flash memory.

\*\*2. Input/Output Devices\*\*

\* \*\*Q:\*\* What are input devices?

\* \*\*A:\*\* Devices used to enter data into a computer (e.g., keyboard, mouse, scanner).

\* \*\*Q:\*\* What are output devices?

\* \*\*A:\*\* Devices used to display or output data from a computer (e.g., monitor, printer, speakers).

\* \*\*Q:\*\* What is a touchscreen?

\* \*\*A:\*\* Input device that allows users to interact with a computer by touching the screen.

\* \*\*Q:\*\* What is a webcam?

\* \*\*A:\*\* Input device used to capture video and images.

\* \*\*Q:\*\* What is a microphone?

\* \*\*A:\*\* Input device used to capture audio.

\* \*\*Q:\*\* What is a printer?

\* \*\*A:\*\* Output device that produces physical copies of documents.

\* \*\*Q:\*\* What is a monitor?

\* \*\*A:\*\* Output device that displays visual information.

\*\*3. Storage Devices\*\*

\* \*\*Q:\*\* What is an external hard drive?

\* \*\*A:\*\* Portable storage device for storing large amounts of data.

\* \*\*Q:\*\* What is a USB flash drive?

\* \*\*A:\*\* Small, portable storage device.

\* \*\*Q:\*\* What is a CD/DVD drive?

\* \*\*A:\*\* Optical drive for reading and writing data on CDs and DVDs.

\* \*\*Q:\*\* What is cloud storage?

\* \*\*A:\*\* Online storage space for data, accessible from anywhere with an internet connection.

\*\*4. Networking\*\*

\* \*\*Q:\*\* What is a network?

\* \*\*A:\*\* A group of interconnected devices that can communicate with each other.

\* \*\*Q:\*\* What is the internet?

\* \*\*A:\*\* A global network of interconnected computers.

\* \*\*Q:\*\* What is a router?

\* \*\*A:\*\* A device that directs network traffic between different networks.

\* \*\*Q:\*\* What is a modem?

\* \*\*A:\*\* A device that modulates and demodulates signals for data transmission over communication channels.

\* \*\*Q:\*\* What is Wi-Fi?

\* \*\*A:\*\* Wireless technology for networking devices.

\* \*\*Q:\*\* What is Ethernet?

\* \*\*A:\*\* Wired network technology.

\*\*5. Computer Architecture\*\*

\* \*\*Q:\*\* What is the von Neumann architecture?

\* \*\*A:\*\* A computer architecture based on the stored-program concept.

\* \*\*Q:\*\* What are the key components of the von Neumann architecture?

\* \*\*A:\*\* CPU, memory, input/output devices.

\* \*\*Q:\*\* What is a bit?

\* \*\*A:\*\* The smallest unit of data in a computer, representing a binary digit (0 or 1).

\* \*\*Q:\*\* What is a byte?

\* \*\*A:\*\* A group of 8 bits.

\* \*\*Q:\*\* What is a kilobyte (KB), megabyte (MB), gigabyte (GB), terabyte (TB)?

\* \*\*A:\*\* Units of measurement for computer storage capacity.

\*\*6. Peripherals\*\*

\* \*\*Q:\*\* What are peripherals?

\* \*\*A:\*\* Devices connected to a computer that expand its functionality.

\* \*\*Q:\*\* What is a scanner?

\* \*\*A:\*\* Input device that converts physical documents into digital images.

\* \*\*Q:\*\* What is a projector?

\* \*\*A:\*\* Output device that displays images on a large screen.

\* \*\*Q:\*\* What is a joystick?

\* \*\*A:\*\* Input device used for gaming.

\* \*\*Q:\*\* What is a gamepad?

\* \*\*A:\*\* Input device used for gaming, typically held in both hands.

\* \*\*Q:\*\* What is a digital camera?

\* \*\*A:\*\* Input device for capturing digital images and videos.

\*\*7. Computer Troubleshooting\*\*

\* \*\*Q:\*\* What are some common computer problems?

\* \*\*A:\*\* Slow performance, software crashes, hardware malfunctions, network connectivity issues.

\* \*\*Q:\*\* What are some basic troubleshooting steps?

\* \*\*A:\*\* Restart the computer, check for software updates, run antivirus scans, check connections.

\* \*\*Q:\*\* What are some common hardware issues?

\* \*\*A:\*\* Hard drive failure, RAM problems, overheating, power supply issues.

\* \*\*Q:\*\* What are some common software issues?

\* \*\*A:\*\* Software conflicts, virus infections, driver problems, corrupted files.

\*\*8. Computer Safety and Security\*\*

\* \*\*Q:\*\* What is a virus?

\* \*\*A:\*\* Malicious software that can infect a computer and cause damage.

\* \*\*Q:\*\* What is a firewall?

\* \*\*A:\*\* A security system that monitors and controls incoming and outgoing network traffic.

\* \*\*Q:\*\* What is antivirus software?

\* \*\*A:\*\* Software designed to detect and remove viruses.

\* \*\*Q:\*\* What are some best practices for computer security?

\* \*\*A:\*\* Use strong passwords, keep software updated, be cautious of suspicious emails and websites, back up your data regularly.

\* \*\*Q:\*\* What is phishing?

\* \*\*A:\*\* A cybercrime in which attackers attempt to acquire sensitive information by masquerading as a trustworthy entity.

\*\*9. Computer Ethics\*\*

\* \*\*Q:\*\* What is computer ethics?

\* \*\*A:\*\* The moral principles and values that govern the use of computers and information technology.

\* \*\*Q:\*\* What is copyright?

\* \*\*A:\*\* The exclusive legal right to reproduce, publish, perform, film, or record literary, artistic, or dramatic works.

\* \*\*Q:\*\* What is plagiarism?

\* \*\*A:\*\* The practice of taking someone else's work or ideas and passing them off as one's own.

\* \*\*Q:\*\* What is cyberbullying?

\* \*\*A:\*\* The use of electronic communication to bully a person, typically by sending messages of an intimidating or threatening nature.

\* \*\*Q:\*\* What is digital privacy?

\* \*\*A:\*\* The right of individuals to control how their personal information is collected, used, and shared.

\*\*10. Emerging Technologies\*\*

\* \*\*Q:\*\* What is artificial intelligence (AI)?

\* \*\*A:\*\* The simulation of human intelligence in machines.

\* \*\*Q:\*\* What is machine learning?

\* \*\*A:\*\* A type of AI that allows computers to learn from data without being explicitly programmed.

\* \*\*Q:\*\* What is the Internet of Things (IoT)?

\* \*\*A:\*\* A network of interconnected devices that can collect and exchange data.

\* \*\*Q:\*\* What is virtual reality (VR)?

\* \*\*A:\*\* A technology that creates a simulated experience that can be interacted with in a seemingly real or physical way.

\* \*\*Q:\*\* What is augmented reality (AR)?

\* \*\*A:\*\* A technology that overlays digital information onto the real world