**Multiple Choice Questions (10 Questions)**

1. **Topic**: *Communication Media* **Level 0**  
   **Question: Which of the following is a communication medium used primarily for transmitting information visually?**

A) Email

B) Video Streaming

C) Audio Broadcasting

D) Podcasting  
**Answer**: B

1. **Topic**: *Types of Computers* **Level 1**  
   **Question: Which of the following types of computers would be most suitable for scientific research that requires heavy computational power and memory?**

A) Laptop

B) Desktop

C) Mainframe

D) Supercomputer  
**Answer**: D

1. **Topic**: *The Role of the CPU* **Level 2**  
   **Question: Analyze the role of the CPU’s control unit in fetching, decoding, and executing instructions. How does this process contribute to the overall performance of a computer?**

A) It coordinates the activities of all hardware components

B) It accelerates input/output processing

C) It stores data temporarily during processing

D) It controls network connectivity  
**Answer**: A

1. **Topic**: *Input Devices* **Level 1**  
   **Question: Which input device is commonly used in the healthcare sector for capturing patient information such as blood pressure and temperature?**

A) Keyboard

B) Barcode Scanner

C) Sensor

D) Joystick  
**Answer**: C

1. **Topic**: *Storage Devices* **Level 0**  
   **Question: Which type of storage device typically offers faster read and write speeds compared to traditional hard drives?**

A) Optical Drive

B) Solid-State Drive (SSD)

C) Magnetic Tape

D) Blu-ray Disc  
**Answer**: B

1. **Topic**: *Mobile Communication* **Level 2**  
   **Question: Evaluate the impact of 5G mobile networks on Internet of Things (IoT) devices in smart homes. What advantages does it bring in terms of connectivity and data transmission?**

A) It reduces the power consumption of IoT devices

B) It provides faster data transfer and lower latency

C) It limits the number of connected devices

D) It has no significant effect on IoT devices  
**Answer**: B

1. **Topic**: *Network Types* **Level 0**  
   **Question: What type of network is used to connect computers within a single room or building?**

A) LAN (Local Area Network)

B) MAN (Metropolitan Area Network)

C) WAN (Wide Area Network)

D) PAN (Personal Area Network)  
**Answer**: A

1. **Topic**: *Security Issues in Data Transfer* **Level 1**  
   **Question: What is the main function of SSL (Secure Sockets Layer) in online communication?**

A) To prevent hackers from accessing data

B) To compress data for faster transfer

C) To encrypt data during transmission

D) To increase the bandwidth of the connection  
**Answer**: C

1. **Topic**: *Network Interface Cards (NIC)* **Level 0**  
   **Question: What is the primary function of a Network Interface Card (NIC) in a computer system?**

A) To monitor network performance

B) To enable wireless internet connection

C) To provide physical connectivity to a network

D) To store network data  
**Answer**: C

1. **Topic**: *Communication Technologies* **Level 1**  
   **Question: How does email communication differ from instant messaging when used for business purposes?**

A) Email is slower than instant messaging but more formal

B) Instant messaging is more secure than email

C) Email has higher delivery reliability than instant messaging

D) Instant messaging is better for formal business communications  
**Answer**: A

**Short Questions (10 Questions)**

1. **Topic**: *Types of Computers* **Level 0**  
   **Question: What distinguishes a mobile computer from a desktop computer in terms of portability?**
2. **Topic**: *Input Devices* **Level 1**  
   **Question: Explain the role of a microphone as an input device in voice recognition software.**
3. **Topic**: *Output Devices* **Level 2**  
   **Question: How do 3D printers differ from traditional inkjet printers in terms of functionality and application? Provide an example of their use.**
4. **Topic**: *Storage Devices* **Level 1**  
   **Question: Compare the advantages and disadvantages of using a pen drive and a solid-state drive (SSD) for data transfer.**
5. **Topic**: *Mobile Communication* **Level 0**  
   **Question: What is mobile communication, and what devices typically use this technology?**
6. **Topic**: *Network Security* **Level 2**  
   **Question: Discuss how the implementation of multi-factor authentication enhances network security.**
7. **Topic**: *Cloud Computing* **Level 1**  
   **Question: Explain the benefits of using cloud computing services for file storage compared to traditional local storage.**
8. **Topic**: *Software and Programs* **Level 0**  
   **Question: What is the primary purpose of an operating system in a computer system?**
9. **Topic**: *Communication Technologies* **Level 2**  
   **Question: Analyze the use of video conferencing software in modern businesses, highlighting its advantages and limitations.**
10. **Topic**: *Internet Protocols* **Level 1**  
    **Question: How does the HTTP protocol ensure secure data transfer between a client and a web server?**

**Long Questions (5 Questions)**

1. **Topic**: *The Systems Life Cycle* **Level 1**  
   **Question: Describe the stages involved in the system development life cycle (SDLC) and how each contributes to the final product.**
2. **Topic**: *Cloud Computing* **Level 2**  
   **Question: Evaluate the role of cloud computing in improving the scalability and flexibility of enterprise IT systems.**
3. **Topic**: *Data Security in Networks* **Level 0**  
   **Question: Define data security and explain the role of encryption in protecting sensitive information transmitted over the internet.**
4. **Topic**: *Communication Technologies* **Level 2**  
   **Question: Analyze the evolution of mobile communication technologies from 2G to 5G and their impact on global connectivity.**
5. **Topic**: *Network Types and Devices* **Level 1**  
   **Question: Compare and contrast a router, a switch, and a hub in terms of their roles within a network. Provide examples of situations where each would be used.**