**Question 1: Data Types and Operations**

**What are the different data types commonly used in programming and what operations can be performed on these data types?**

**Question 2: Digital Logic**

**Explain how logic gates are used to implement basic computational functions in digital circuits.**

**Question 3: Von Neumann Model**

**Describe the Von Neumann architecture and its significance in computer science.**

**Question 4: LC-3 and Assembly**

**What is the LC-3 and how does its assembly language facilitate the understanding of computer operations?**

**Question 5: Process and Disk**

**How do operating systems manage processes and disk operations?**

**Question 6: Virtual Memory**

**Explain the concept of virtual memory and its role in system performance.**

**Question 7: Multithreading**

**What is multithreading and how does it improve computational efficiency?**

**Question 8: Binary Arithmetic**

**Discuss how binary arithmetic is performed in computers and give an example of addition**

**Question 9: Memory Hierarchy**

**Describe the memory hierarchy used in modern computers and its impact on performance.**

**Question 10: Operating Systems**

**What are the key functions of an operating system?**