

# 16 Lecture - CS501

## Important Mcqs

1. **What is the primary function of a control unit in a CPU?**

- a) Data processing
- b) Data storage
- c) Data transmission
- d) Instruction execution

**Answer: d) Instruction execution**

**Which of the following is not a characteristic of a good control unit design?**

- a) High clock speed
- b) Low power consumption
- c) Efficient instruction decoding
- d) Secure operation

**Answer: a) High clock speed**

**Which of the following is not an essential component of a control unit?**

- a) Arithmetic Logic Unit (ALU)
- b) Instruction Register (IR)
- c) Program Counter (PC)
- d) Data Bus

**Answer: d) Data Bus**

**Which technique is used to improve the performance of a control unit by overlapping instruction execution?**

- a) Instruction pipelining
- b) Register renaming
- c) Branch prediction
- d) Virtual memory

**Answer: a) Instruction pipelining**

**Which of the following is not a common instruction set architecture used in control unit design?**

- a) MIPS
- b) x86
- c) ARM
- d) SCSI

**Answer: d) SCSI**

**Which of the following is an important factor to consider in control unit design for mobile devices?**

- a) High power consumption
- b) Large heat dissipation
- c) Low power consumption
- d) High clock speed

**Answer: c) Low power consumption**

**Which of the following is a security feature implemented in some control unit designs to**

**prevent unauthorized code execution?**

- a) Virtual memory
- b) Address translation
- c) Data encryption
- d) Address space randomization

**Answer: d) Address space randomization**

**Which of the following is a technique used in control unit design to reduce the number of instruction cycles required to execute a program?**

- a) Instruction pipelining
- b) Branch prediction
- c) Register renaming
- d) Cache memory

**Answer: b) Branch prediction**

**Which of the following is an important factor to consider in control unit design for high-performance computing?**

- a) Low clock speed
- b) Low power consumption
- c) High clock speed
- d) Low heat dissipation

**Answer: c) High clock speed**

**Which of the following is a feature of some control unit designs that allows multiple threads to execute simultaneously?**

- a) Hyper-threading
- b) Virtual memory
- c) Branch prediction
- d) Instruction pipelining

**Answer: a) Hyper-threading**