

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