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 consumptionb) 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 highperformance 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