

1. Which component of the 8085A processor is responsible for executing arithmetic and logical operations?

- a) CPU
- b) ALU
- c) Memory
- d) Assembler

Answer: b) ALU

Explanation: ALU (Arithmetic Logic Unit) is the component responsible for executing arithmetic and logical operations within the CPU (Central Processing Unit).

2. What is the function of the Fetch cycle in the 8085A processor architecture?

- a) Retrieve data from memory
- b) Execute instructions
- c) Decode instructions
- d) Store results

Answer: a) Retrieve data from memory

Explanation: During the Fetch cycle, the processor retrieves the next instruction or data from memory in order to execute it.

3. In microprocessor terminology, what does ALU stand for?

- a) Arithmetic Logic Unit
- b) Assembly Language Unit
- c) Address Location Unit
- d) Advanced Learning Unit

Answer: a) Arithmetic Logic Unit

Explanation: ALU stands for Arithmetic Logic Unit, which performs arithmetic and logical operations on data.

4. What is the purpose of an interrupt in microprocessor architecture?

- a) To stop the processor
- b) To enhance memory access speed
- c) To temporarily suspend the main program
- d) To increase ALU efficiency

Answer: c) To temporarily suspend the main program

Explanation: Interrupts temporarily suspend the execution of the main program to handle specific events or tasks.

5. Which term refers to the temporary storage units within the CPU in the 8085A architecture?

- a) Cache
- b) Registers
- c) RAM
- d) ROM

Answer: b) Registers

Explanation: Registers are small, fast storage locations within the CPU used for temporary data storage and manipulation.

6. What distinguishes a microcontroller from a microprocessor?

- a) Microcontrollers have a smaller memory capacity

- b) Microcontrollers have integrated peripherals
- c) Microcontrollers lack an ALU
- d) Microcontrollers are slower

Answer: b) Microcontrollers have integrated peripherals

Explanation: Microcontrollers integrate peripherals like timers, ADCs, and communication interfaces on a single chip, whereas microprocessors require external components for such functionalities.

7. What is the primary function of an assembler in microprocessor programming?

- a) Execute instructions
- b) Convert assembly language code into machine code
- c) Store data
- d) Control interrupts

Answer: b) Convert assembly language code into machine code

Explanation: An assembler translates assembly language instructions into machine code that the processor can execute.

8. Which term describes the process of writing data to memory in microprocessor operation?

- a) Fetch cycle
- b) Decode cycle
- c) Write cycle
- d) Execute cycle

Answer: c) Write cycle

Explanation: The write cycle involves writing data to memory, typically after processing or

manipulation.

9. What is the primary purpose of control requirements in microcontrollers?

- a) To manage power consumption
- b) To regulate clock speed
- c) To control peripheral devices
- d) To handle interrupts

Answer: c) To control peripheral devices

Explanation: Control requirements in microcontrollers involve managing and controlling peripheral devices connected to the microcontroller.

10. How are microcontrollers classified based on their architecture?

- a) By clock speed
- b) By memory capacity
- c) By instruction set
- d) By integrated peripherals

Answer: d) By integrated peripherals

Explanation: Microcontrollers can be classified based on the peripherals they integrate, such as ADCs, timers, and communication interfaces.

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