

1. Which microcontroller is known for its 16-bit architecture?

- a) 8051
- b) 8096
- c) PIC16
- d) AVR

Answer: b) 8096

Explanation: The 8096 microcontroller is known for its 16-bit architecture, offering enhanced performance and capabilities compared to 8-bit microcontrollers like the 8051.

2. What is the primary function of a microcontroller's functional block-diagram?

- a) Representing physical dimensions
- b) Illustrating software algorithms
- c) Depicting hardware components and their interconnections
- d) Showing programming syntax

Answer: c) Depicting hardware components and their interconnections

Explanation: A functional block-diagram of a microcontroller illustrates the various hardware components and their connections, aiding in understanding the architecture and design of the microcontroller.

3. Which register in the 8096 microcontroller stores the status of memory operations?

- a) Instruction Register
- b) Program Counter
- c) Stack Pointer

d) Memory Status Register

Answer: d) Memory Status Register

Explanation: The Memory Status Register in the 8096 microcontroller stores the status of memory operations, providing information about memory-related activities.

4. What type of addressing modes are commonly supported by microcontrollers?

- a) Fixed
- b) Variable
- c) Immediate
- d) All of the above

Answer: d) All of the above

Explanation: Microcontrollers commonly support various addressing modes, including fixed, variable, and immediate modes, to facilitate versatile programming and data manipulation.

5. Which feature distinguishes the 8096 microcontroller from its predecessors in terms of memory capacity?

- a) Increased RAM
- b) Expanded ROM
- c) Enhanced cache
- d) All of the above

Answer: d) All of the above

Explanation: The 8096 microcontroller typically offers increased RAM, expanded ROM, and enhanced cache compared to its predecessors, enabling it to handle more complex tasks and

store larger programs.

6. Which register in the 8096 microcontroller is responsible for controlling parallel ports?

- a) Instruction Pointer
- b) Control Register
- c) Status Register
- d) Data Register

Answer: b) Control Register

Explanation: The Control Register in the 8096 microcontroller is responsible for controlling parallel ports, allowing the configuration and management of parallel input/output operations.

7. Which instruction set classification does the 8096 microcontroller belong to?

- a) CISC
- b) RISC
- c) Hybrid
- d) None of the above

Answer: a) CISC

Explanation: The 8096 microcontroller belongs to the Complex Instruction Set Computer (CISC) architecture, characterized by a large and diverse instruction set with complex instructions.

8. What is a primary advantage of using 16/32 bit PIC microcontrollers?

- a) Lower power consumption
- b) Higher processing speed
- c) Reduced code size
- d) Enhanced compatibility

Answer: b) Higher processing speed

Explanation: 16/32 bit PIC microcontrollers typically offer higher processing speed compared to their 8-bit counterparts, making them suitable for applications requiring faster execution of tasks.

9. Which register in the 8096 microcontroller stores the control information for various operations?

- a) Data Register
- b) Control Register
- c) Status Register
- d) Program Counter

Answer: b) Control Register

Explanation: The Control Register in the 8096 microcontroller stores control information for various operations, allowing the configuration and management of specific functionalities.

10. What distinguishes DSPIC microcontrollers from standard PIC microcontrollers?

- a) Higher clock frequency
- b) DSP-oriented features
- c) Larger memory capacity
- d) Enhanced power efficiency

Answer: b) DSP-oriented features

Explanation: DSPIC microcontrollers are specifically designed with digital signal processing (DSP) capabilities, offering specialized features and instructions optimized for DSP applications, unlike standard PIC microcontrollers.