

# 15 Lecture - CS501

## Important Mcqs

1. **Which of the following best describes logic design?**

- A) The process of creating digital circuits using logic gates
- B) The process of creating analog circuits using operational amplifiers
- C) The process of designing software algorithms
- D) The process of designing mechanical systems

**Answer: A) The process of creating digital circuits using logic gates**

**Which of the following is not a control signal used in SRC?**

- A) Memory request signal
- B) CPU request signal
- C) Interrupt signal
- D) Power supply signal

**Answer: D) Power supply signal**

**What is the purpose of control signals in SRC?**

- A) To manage system resources
- B) To provide power to the system
- C) To communicate with external devices
- D) To create user interfaces

**Answer: A) To manage system resources**

**What is the basic building block of digital logic circuits?**

- A) Resistors
- B) Capacitors
- C) Transistors
- D) Inductors

**Answer: C) Transistors**

**Which of the following is a type of logic gate?**

- A) AND gate
- B) OR gate
- C) NOT gate
- D) All of the above

**Answer: D) All of the above**

**Which of the following is an example of a combinatorial logic circuit?**

- A) Flip-flop
- B) Counter
- C) Decoder
- D) None of the above

**Answer: C) Decoder**

**Which of the following is an example of a sequential logic circuit?**

- A) Adder

- B) Multiplexer
- C) Flip-flop
- D) Comparator

**Answer: C) Flip-flop**

**Which of the following is a characteristic of synchronous circuits?**

- A) They have no clock signal
- B) They have a feedback path
- C) They have a stable state
- D) They have no race conditions

**Answer: C) They have a stable state**

**What is the purpose of a clock signal in synchronous circuits?**

- A) To provide power to the circuit
- B) To synchronize the operation of the circuit
- C) To create an output signal
- D) To generate a control signal

**Answer: B) To synchronize the operation of the circuit**

**Which of the following is an example of a control signal used in SRC?**

- A) Voltage signal
- B) Data signal
- C) Clock signal
- D) Interrupt signal

**Answer: D) Interrupt signal**