

24 Lecture - CS302

Important Mcqs

1. Which of the following is an application of the Edge-triggered D flip-flop?

- A) Data input
- B) Data output
- C) Data storage and transfer
- D) None of the above

Answer: C

In a digital counter, which of the following is used to store the current count value?

- A) D flip-flop
- B) T flip-flop
- C) SR flip-flop
- D) JK flip-flop

Answer: A

Which type of flip-flop is used to ensure that data is sampled at the correct time?

- A) Edge-triggered D flip-flop
- B) Level-sensitive D flip-flop
- C) JK flip-flop
- D) SR flip-flop

Answer: A

What is the primary use of the D flip-flop in sequential logic circuits?

- A) To hold or buffer data
- B) To implement feedback signals
- C) To store the current state of a system
- D) None of the above

Answer: C

Which of the following is an advantage of using edge-triggered D flip-flops in data storage and transfer?

- A) Increased speed and efficiency
- B) Reduced power consumption
- C) Increased storage capacity
- D) None of the above

Answer: A

In a control system, what is the role of the D flip-flop?

- A) To implement logic functions
- B) To provide feedback signals
- C) Both A and B
- D) None of the above

Answer: C

Which of the following is an application of the D flip-flop in synchronization and timing

control?

- A) Synchronizing input signals with the clock signal
- B) Controlling power consumption
- C) Increasing storage capacity
- D) None of the above

Answer: A

How does the D flip-flop help in avoiding timing issues and glitches?

- A) By using level-sensitive triggering
- B) By using clock gating
- C) By using edge-triggered triggering
- D) None of the above

Answer: C

In a feedback control system, which of the following is used to implement logic functions?

- A) D flip-flop
- B) SR flip-flop
- C) JK flip-flop
- D) None of the above

Answer: A

Which of the following statements is true about the D flip-flop?

- A) It is used to store a single bit of information.
- B) Its output changes only on the falling edge of the clock signal.
- C) It is not useful in sequential logic circuits.
- D) None of the above

Answer: A