

15 Lecture - CS302

Important Mcqs

1. **What is the purpose of a BCD adder circuit?**

- A) To add two binary numbers
- B) To add two decimal numbers
- C) To add two BCD numbers
- D) To subtract two BCD numbers

Answer: C

2. **Which type of logic gates are used in BCD adder circuit?**

- A) AND gates
- B) OR gates
- C) XOR gates
- D) All of the above

Answer: D

3. **How many bits are required to represent a single BCD digit?**

- A) 2
- B) 3
- C) 4
- D) 5

Answer: C

4. **How many full adders are required to design a 4-bit BCD adder?**

- A) 1
- B) 2
- C) 3
- D) 4

Answer: 2

5. **Which input(s) of a BCD adder are applied to the carry-in of the first full adder?**

- A) The least significant bit (LSB) of both inputs
- B) The most significant bit (MSB) of both inputs
- C) The carry-out of the previous stage and the LSB of the current stage input
- D) None of the above

Answer: D

6. **What is the maximum sum that can be generated by a single BCD adder?**

- A) 9
- B) 10

- C) 15
- D) 16

Answer: 9

7. **What is the carry-out of a full adder when both inputs are 1?**
- A) 0
 - B) 1
 - C) 2
 - D) Cannot be determined

Answer: 1

8. **Which type of multiplexer is used in BCD adder to select between the carry-in and sum output of the full adder?**
- A) 2:1
 - B) 4:1
 - C) 8:1
 - D) 16:1

Answer: A

9. **What is the purpose of the parity generator in BCD adder circuit?**
- A) To check for errors in the input data
 - B) To ensure that the output is a valid BCD number
 - C) To generate a parity bit for error detection
 - D) None of the above

Answer: B

10. **What is the maximum number of BCD digits that can be added using an 8-bit BCD adder?**
- A) 1
 - B) 2
 - C) 4
 - D) 8

Answer: 2