## 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

