

# 9 Lecture - CS302

## Important Mcqs

1. What is the complement of the Boolean expression  $A + B$ ?

- A.  $A + B$
- B.  $AB$
- C.  $A' + B'$
- D.  $AB'$

**Solution: C**

2. What is the output of the AND gate when both inputs are 1?

- A. 0
- B. 1
- C. Undefined
- D. Can't be determined

**Solution: B**

3. Which of the following laws of Boolean algebra is used to simplify the expression  $A(B+C)$ ?

- A. Associative law
- B. Commutative law
- C. Distributive law
- D. DeMorgan's law

**Solution: C**

4. What is the output of the XOR gate when both inputs are 1?

- A. 0
- B. 1
- C. Undefined
- D. Can't be determined

**Solution: A**

5. What is the complement of the Boolean expression  $AB + C$ ?

- A.  $AB' + C'$
- B.  $A' + B' + C'$
- C.  $A + B' + C$
- D.  $AB' + C$

**Solution: B**

6. Which of the following is a simplification technique used for Boolean expressions?

- A. Truth table

- B. Logic gate
- C. Karnaugh map
- D. Flip-flop

**Solution: C**

7. **What is the output of the OR gate when both inputs are 0?**

- A. 0
- B. 1
- C. Undefined
- D. Can't be determined

**Solution: A**

8. **Which of the following is NOT a logical operator in Boolean algebra?**

- A. AND
- B. OR
- C. XOR
- D. NOT

**Solution: C**

9. **Which of the following is a property of DeMorgan's law?**

- A.  $A + 0 = A$
- B.  $A + A' = 0$
- C.  $A(B+C) = AB + AC$
- D.  $(A+B)' = A' \cdot B'$

**Solution: B**

10. **What is the output of the NAND gate when both inputs are 0?**

- A. 0
- B. 1
- C. Undefined
- D. Can't be determined

**Solution: B**