

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