

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