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' . 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