

14 Lecture - CS302

Important Mcqs

- Which logic gate is typically used in the implementation of an odd-parity generator circuit?**
 - NOT gate
 - XOR gate
 - OR gate
 - AND gate**Answer: b**
- What is the purpose of an odd-parity generator circuit?**
 - To generate random numbers
 - To generate a parity bit based on the input data
 - To add noise to the data signal
 - To compress the data signal**Answer: b**
- In an odd-parity generator circuit, the parity bit is set to 1 if:**
 - The number of 0's in the data input is even
 - The number of 0's in the data input is odd
 - The number of 1's in the data input is even
 - The number of 1's in the data input is odd**Answer: c**
- How many input bits are required for an odd-parity generator circuit to generate a single parity bit?**
 - 1
 - 2
 - 3
 - 4**Answer: 1**
- Which of the following represents the output of an odd-parity generator circuit for the input 10101?**
 - 101010
 - 101011
 - 101000
 - 101001**Answer: b**
- In an odd-parity generator circuit, what is the output when the input has an odd number of 1's?**
 - 0
 - 1
 - Depends on the specific circuit implementation
 - Cannot be determined

Answer: b

7. **Which of the following is a disadvantage of using an odd-parity generator circuit?**
- a) It requires additional hardware to implement
 - b) It can only detect single-bit errors
 - c) It slows down the data transmission speed
 - d) It increases the complexity of the system

Answer: a

8. **Which logic gate can be used to implement an odd-parity checker circuit?**
- a) OR gate
 - b) XOR gate
 - c) AND gate
 - d) NAND gate

Answer: b

9. **Which of the following is a valid input for an odd-parity generator circuit?**
- a) 01010
 - b) 11000
 - c) 11111
 - d) 00000

Answer: b

10. **What is the function of a parity bit in digital communication systems?**
- a) To add noise to the data signal
 - b) To compress the data signal
 - c) To verify the accuracy of the transmitted data
 - d) To increase the complexity of the system

Answer: c