

# 7 Lecture - CS302

## Important Mcqs

1. Which of the following is not a digital circuit component?

- a) Resistor
- b) Capacitor
- c) Transistor
- d) Logic gate

Answer: a) Resistor

2. What is the primary advantage of digital circuits over analog circuits?

- a) Higher accuracy
- b) Lower power consumption
- c) Faster processing
- d) All of the above

Answer: d) All of the above

3. Which of the following is not a basic logic gate?

- a) XOR gate
- b) NAND gate
- c) INHIBIT gate
- d) NOT gate

Answer: c) INHIBIT gate

4. What is the purpose of a decoder circuit?

- a) To convert a binary input into one of several possible outputs
- b) To combine multiple inputs into a single output
- c) To provide a logical complement of the input signal
- d) To amplify the input signal

Answer: a) To convert a binary input into one of several possible outputs

5. What is the propagation delay of a logic gate?

- a) The amount of time it takes for a signal to travel through the gate
- b) The amount of time it takes for the gate output to respond to a change in its input
- c) The amount of time it takes for a gate to power up
- d) The amount of time it takes for a gate to power down

Answer: b) The amount of time it takes for the gate output to respond to a change in its input

6. Which of the following is not an operational characteristic of digital circuits?

- a) Output voltage
- b) Timing characteristics
- c) Frequency response
- d) Power consumption

Answer: c) Frequency response

7. What is the purpose of a multiplexer circuit?

- a) To convert a binary input into one of several possible outputs

- b) To combine multiple inputs into a single output
- c) To provide a logical complement of the input signal
- d) To select one of several input signals to pass through to the output

Answer: d) To select one of several input signals to pass through to the output

8. **Which type of logic uses a high voltage to represent a logical "1"?**

- a) Positive logic
- b) Negative logic
- c) Complementary logic
- d) None of the above

Answer: a) Positive logic

9. **What is the primary purpose of simulation in digital circuit design?**

- a) To test the circuit for reliability
- b) To optimize the circuit for power consumption
- c) To analyze the circuit's performance under different input conditions
- d) To manufacture the circuit components

Answer: c) To analyze the circuit's performance under different input conditions

10. **Which of the following is not a common application of digital circuits?**

- a) Computer systems
- b) Telecommunications
- c) Power generation
- d) Consumer electronics

Answer: c) Power generation