# 17 Lecture - CS302

# **Important Subjective**

#### 1. What is the purpose of the 74xx138 decoder?

Answer: The 74xx138 decoder is used to convert a 3-bit binary code to an 8-bit output.

## 2. How many inputs does the 74xx138 decoder have?

Answer: The 74xx138 decoder has three inputs.

# 3. How many outputs does the 74xx138 decoder have?

Answer: The 74xx138 decoder has eight outputs.

#### 4. How is the active output determined in the 74xx138 decoder?

Answer: The active output is determined by the binary code applied to the input.

#### 5. What is the function of the enable input in the 74xx138 decoder?

Answer: The enable input is used to disable the decoder.

#### 6. What is the function of the active-low output in the 74xx138 decoder?

Answer: The active-low output inverts the output signal.

# 7. What is the maximum number of output lines that can be enabled in the 74xx138 decoder?

Answer: The maximum number of output lines that can be enabled in the 74xx138 decoder is three.

# 8. What is the function of the address decoder in a digital circuit?

Answer: The address decoder is used to decode memory addresses to select a specific memory location.

## 9. What is the difference between an active-high and active-low output?

Answer: An active-high output is activated by a high voltage level, while an active-low output is activated by a low voltage level.

### 10. What are some applications of the 74xx138 decoder?

Answer: The 74xx138 decoder is used in various digital circuits, including address decoding, memory mapping, and control logic circuits.