## 17 Lecture - CS302

## Important Subjective

1. What is the purpose of the $74 \times x 138$ 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 $74 \times x 138$ decoder have?

Answer: The 74xx138 decoder has three inputs.
3. How many outputs does the $74 \times x 138$ decoder have?

Answer: The 74xx138 decoder has eight outputs.
4. How is the active output determined in the $74 \times x 138$ 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 $74 \times x 138$ decoder?

Answer: The enable input is used to disable the decoder.
6. What is the function of the active-low output in the $74 \times x 138$ 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 $74 \times x 138$ decoder?
Answer: The maximum number of output lines that can be enabled in the $74 \times x 138$ 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 $74 \times x 138$ decoder?

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

