

# 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.