Lecture 9 - 1

## Lecture 9

# **Multiplexer and Demultiplexer**

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#### **Multiplexer**

A combinational circuit that selects binary information from one of many inputs and directs it to a single output.



Example. 4-to-1 Multiplexer

### **4-to-1 Multiplexer Implementation**



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Lecture 9 - 4

#### Demultiplexer

- Performs the inverse function of multiplexer.
- Receives information from a single line and transmits it to one of 2<sup>n</sup> possible output lines.



