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DLD Lab No: 06 (Multiplexer)

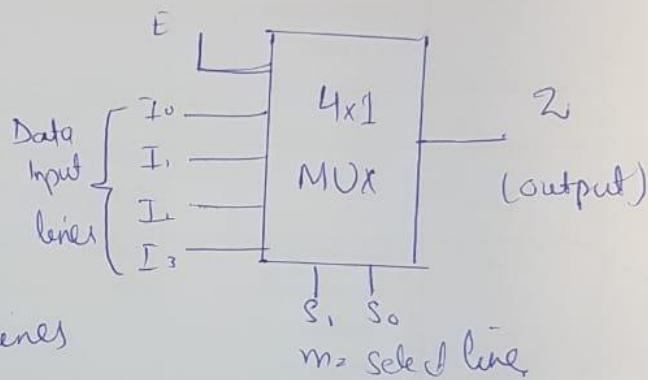
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Lab 6 Multiplexer (4x1)

Observation Table:-

Input lines I_0, I_1, I_2, I_3 Select lines S_1, S_0 output Variable



find select lines

$$n = 4$$

$$m = \log_2 n$$

$$m = \log_2 4$$

$$m = \log_2 2^2 \quad \because \log_a a = 1$$

$$m = 2 \log_2 1$$

$$m = 2 \cdot 1 = 2$$

Observation Table

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Select lines		output
S_1	S_0	Z
0	0	I_0
0	1	I_1
1	0	I_2
1	1	I_3

$$Z = S_1 \bar{S}_0 \bar{I}_0 + \bar{S}_1 S_0 I_1 + S_1 \bar{S}_0 I_2 + S_1 S_0 I_3$$

Circuit Diagram.

