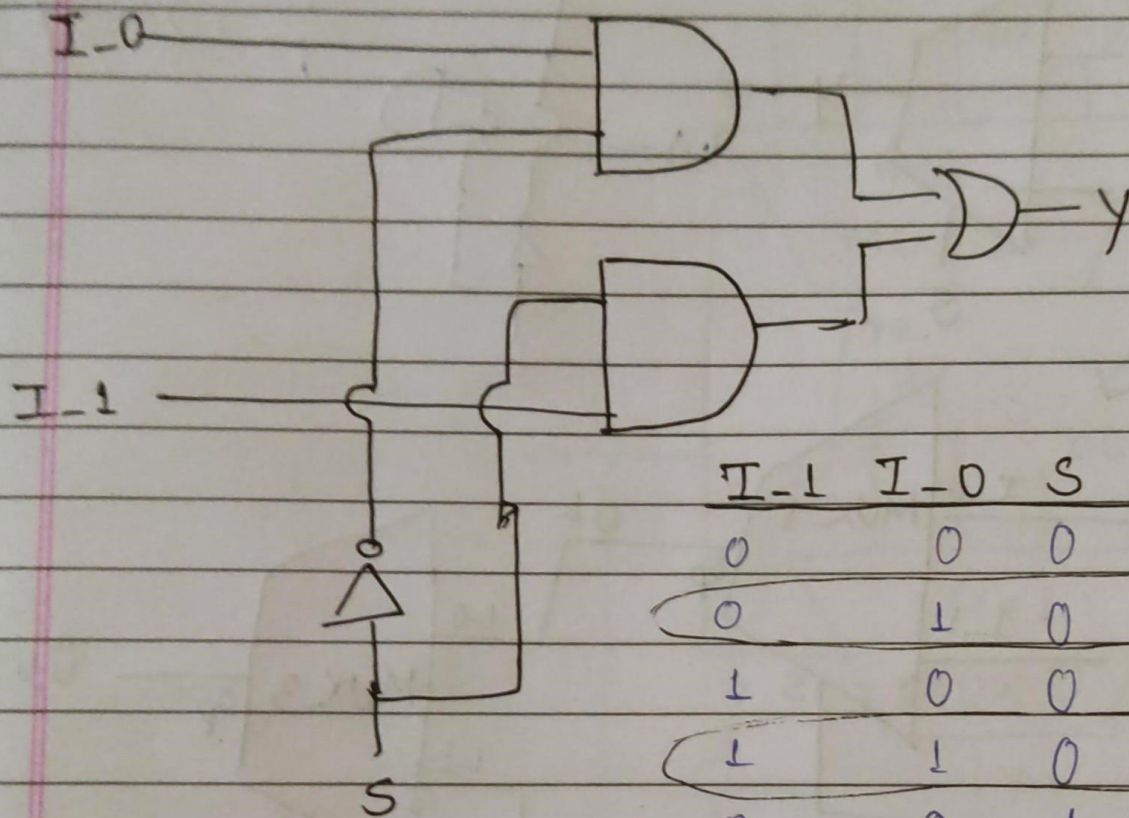


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LAB-2

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(1) PART A: 2x1 MUX



I-1	I-0	S	Y
0	0	0	0
0	1	0	1
1	0	0	0
1	1	0	1
0	0	1	0
0	1	1	0
1	0	1	1
1	1	1	1

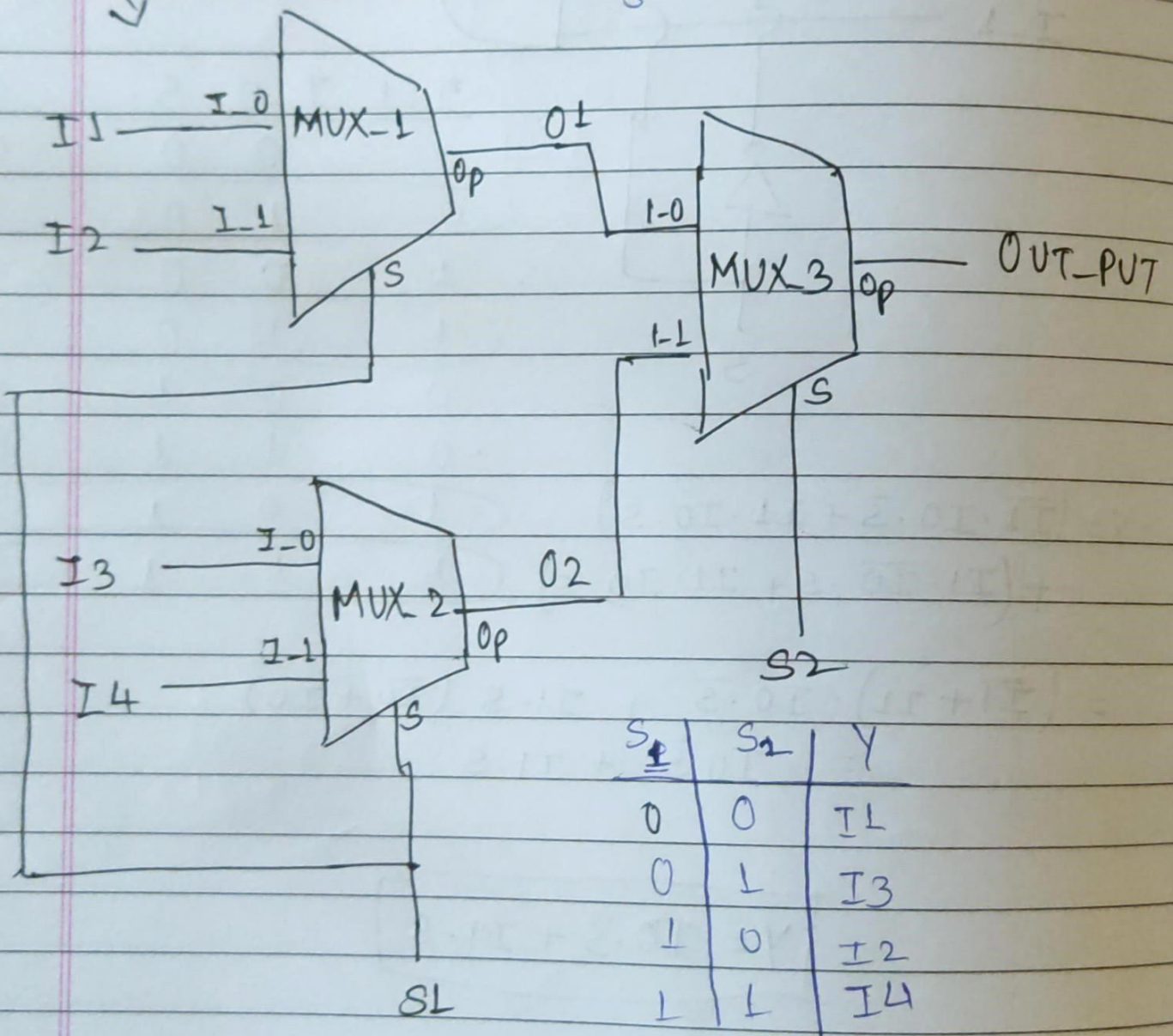
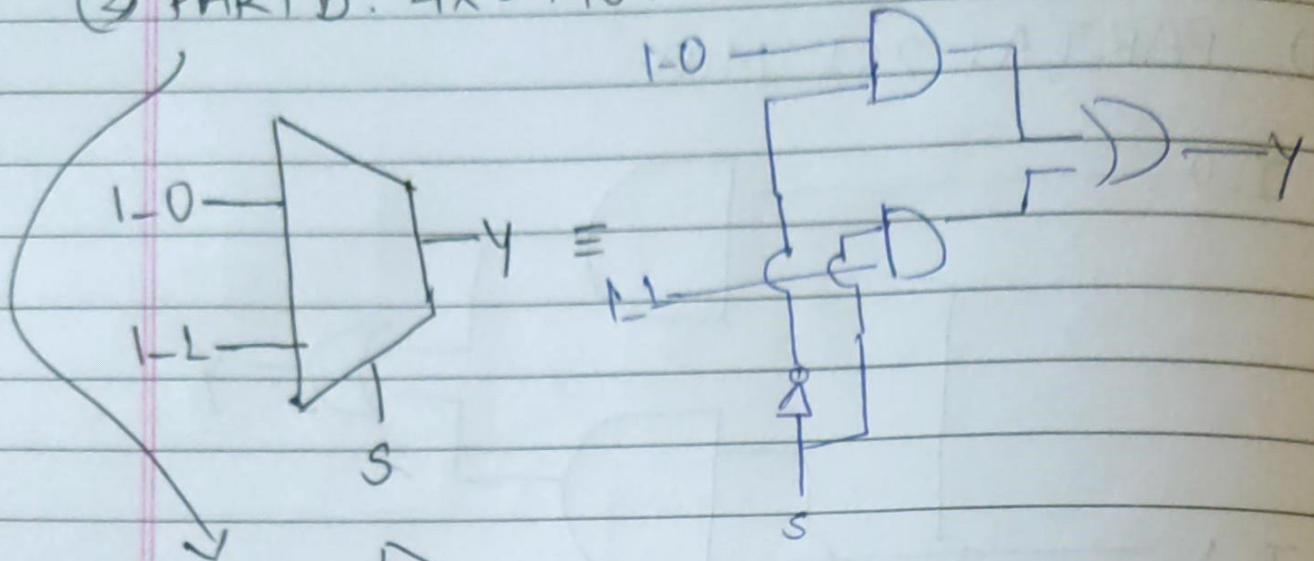
$$Y = (\bar{I}_1 \cdot I_0 \cdot \bar{S} + I_1 \cdot I_0 \cdot \bar{S}) + (I_1 \cdot \bar{I}_0 \cdot S + I_1 \cdot I_0 \cdot S)$$

$$= (\bar{I}_1 + I_1) \cdot I_0 \cdot \bar{S} + I_1 \cdot S (\bar{I}_0 + I_0)$$

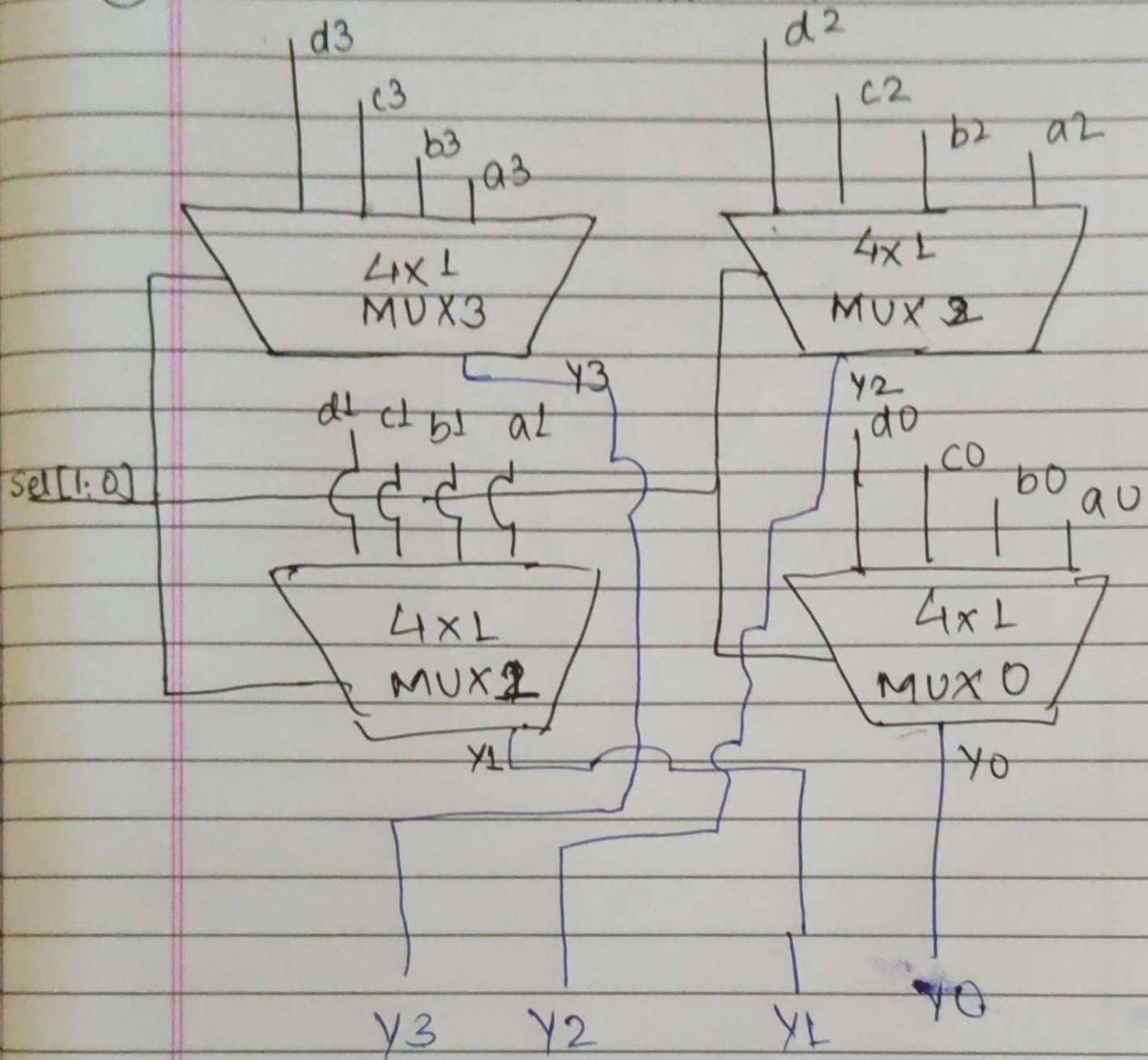
$$= I_0 \cdot \bar{S} + I_1 \cdot S$$

$$Y = I_0 \cdot \bar{S} + I_1 \cdot S$$

② PART B: 4x1 MUX



③ PART C : 4-bit - 4x1 MUX



Alhoj
 18/8/23