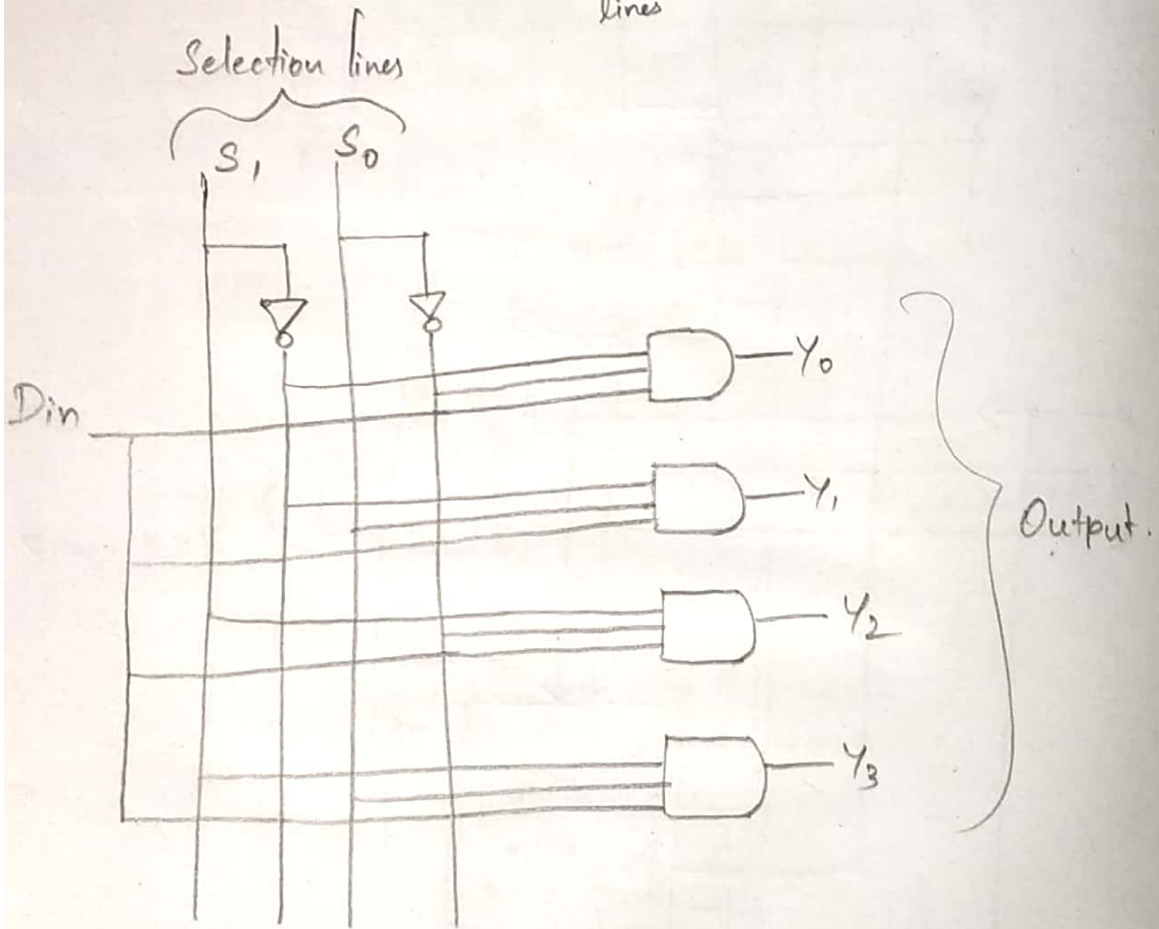
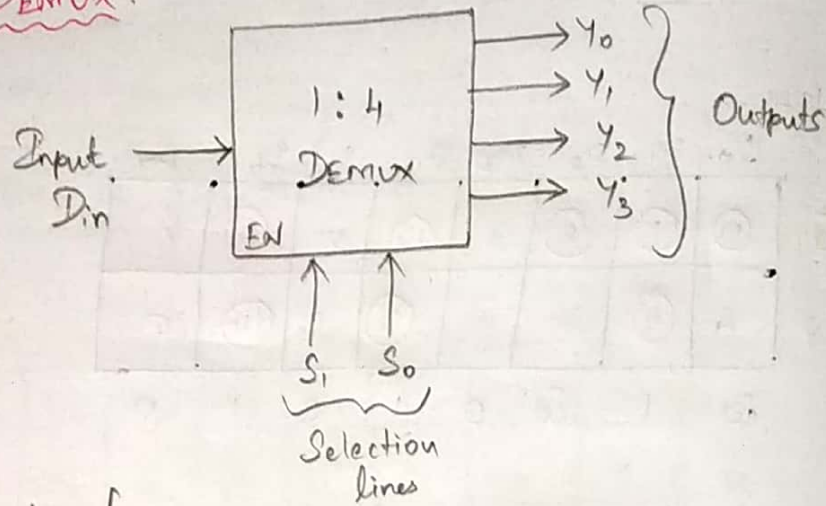


DEMULTIPLEXER.

1:4 DEMUX.



S_1	S_0	Y_3	Y_2	Y_1	Y_0
0	0	0	0	0	D_{in}
0	1	0	0	D_{in}	0
1	0	0	D_{in}	0	0
1	1	D_{in}	0	0	0

PROBLEM.

1) Design a full subtractor using demultiplexor.

Solu:

A	B	C	B	D
0	0	0	0	0
0	0	1	1	1
0	1	0	1	1
0	1	1	1	0
1	0	0	0	1
1	0	1	0	0
1	1	0	0	0
1	1	1	1	1

$$\text{Borrow} = \sum_m (1, 2, 3, 7)$$

$$\text{Difference} = \sum_m (1, 2, 4, 7)$$

