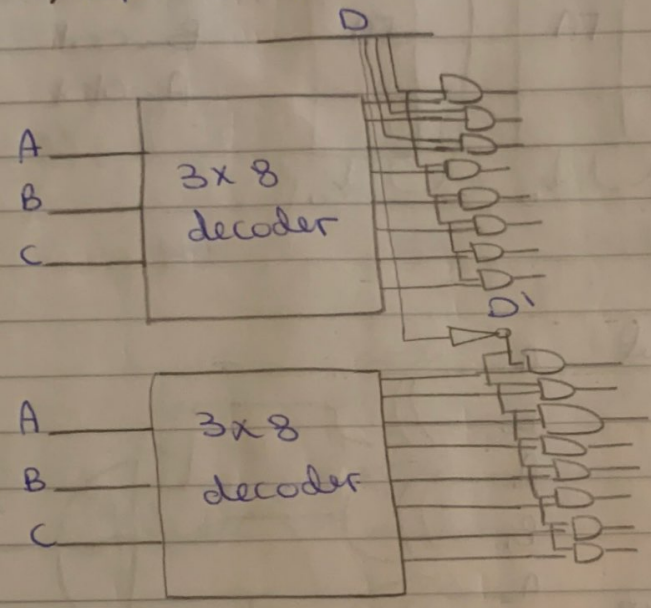
Tuesday, December 22, 2020

Tutorial 8

* Encoding ⇝ encryption
* Decoder ⇝ n input, 2^n output

1) input: 4 inputs (A, B, C, D)

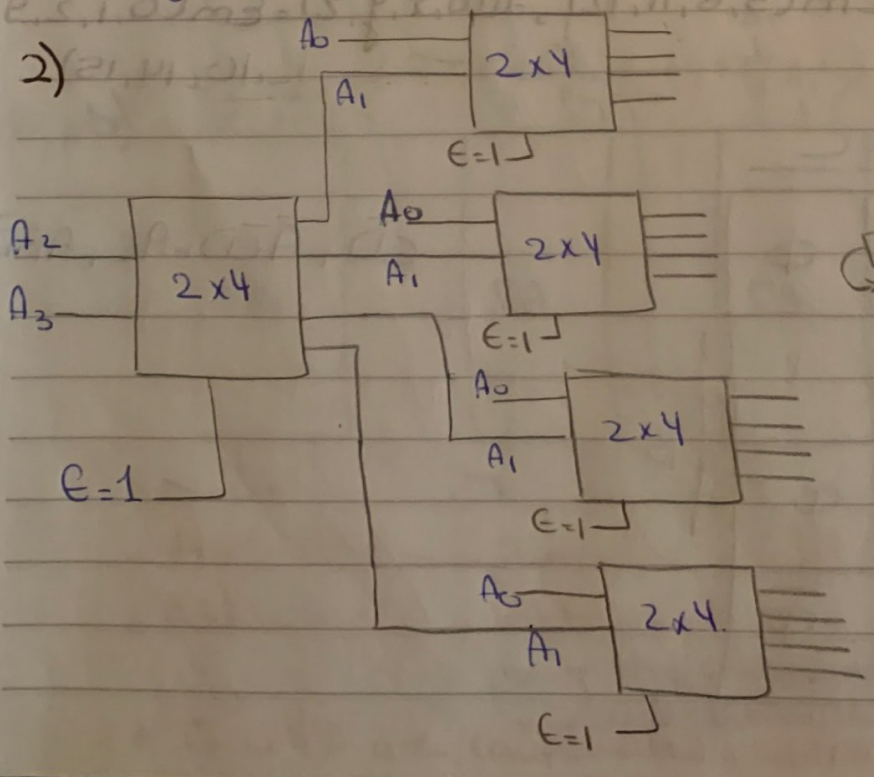


A	B	C	D
0	0	0	0
			1
		1	0
			1
	1	0	0
			1
		1	0
			1

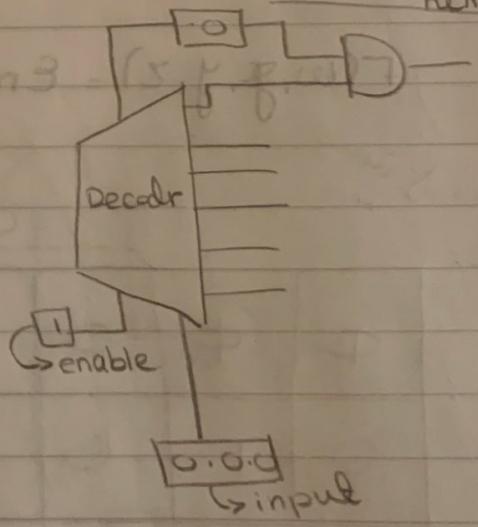
different

* By default enable is 1

2)



Logism | label for labeling here!



* If E is 0, no output

A_3 A_2 A_1 A_0

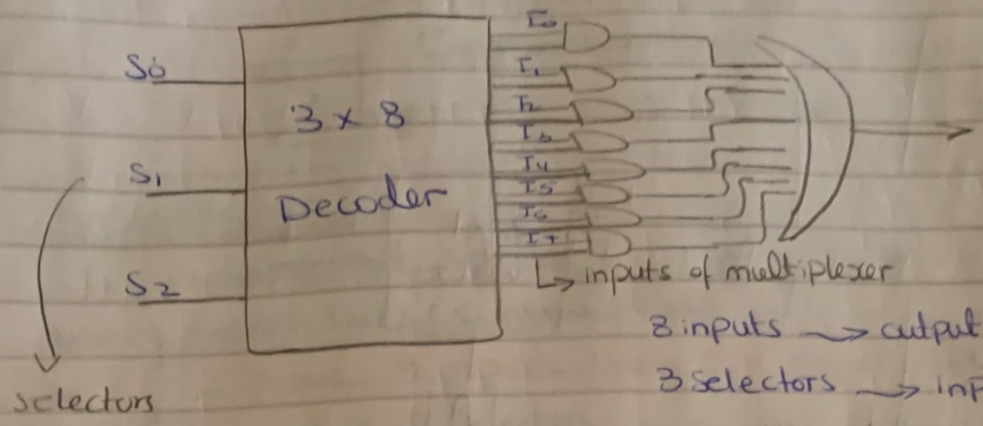
Selectors

logic form

| x | x |

→ no output
2 bits

3) a)

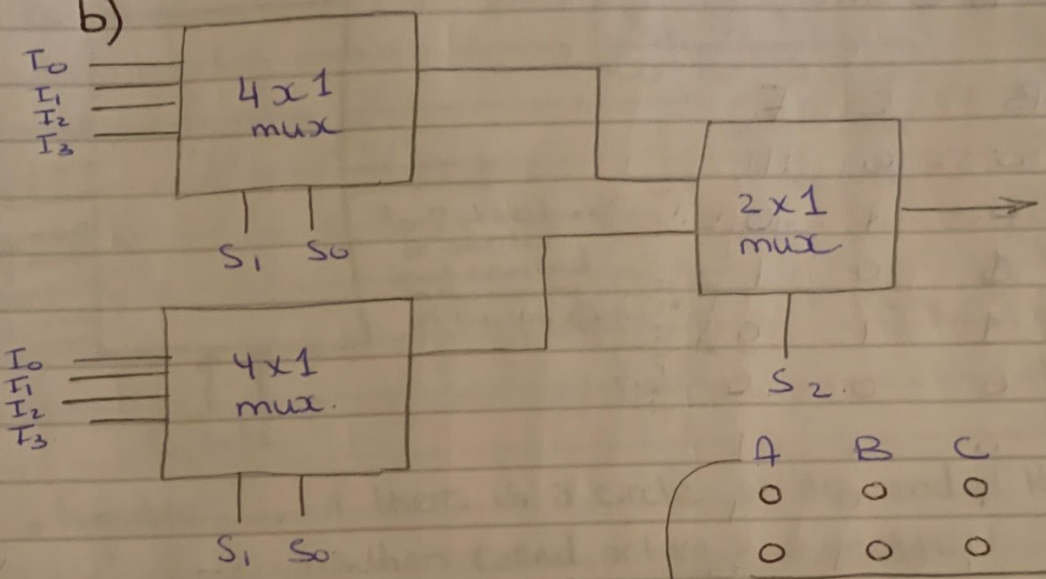


selectors

8 inputs → output of decoder.

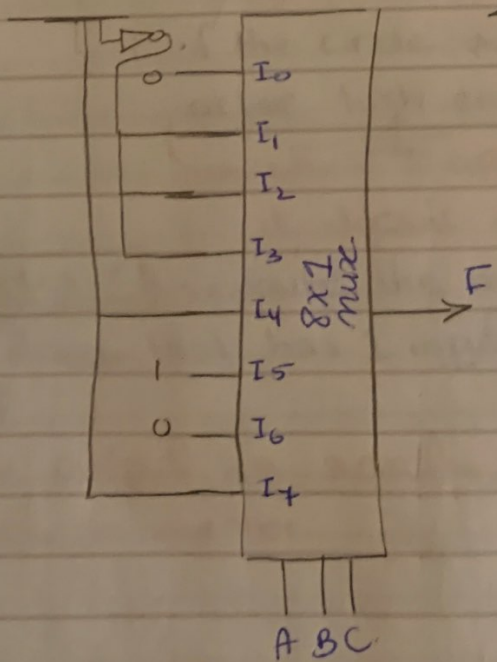
3 selectors → input of decoder

b)



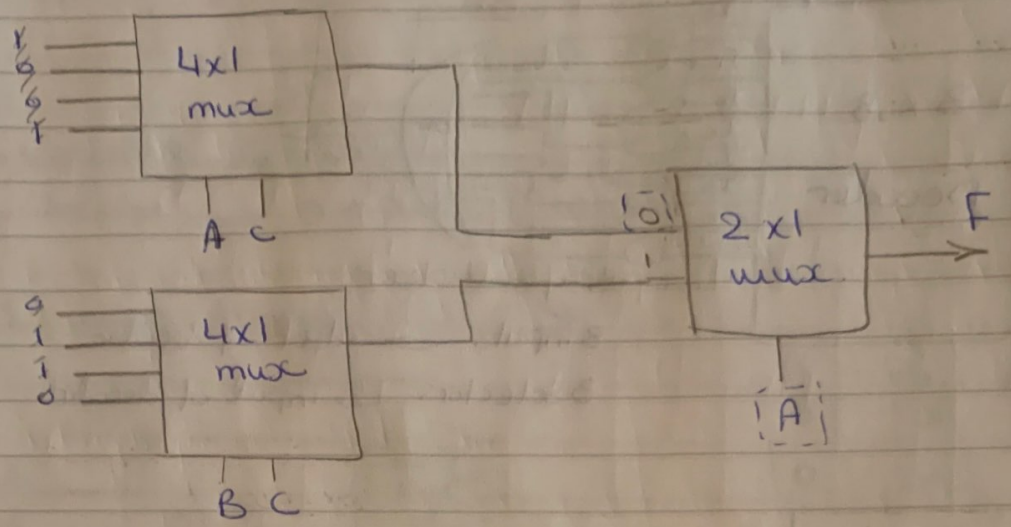
4)

Truth table & Diagram are the answer together



A	B	C	D	F	input
0	0	0	0	0	
0	0	0	1	0	0
0	0	1	0	1	
0	0	1	1	0	D'
0	1	0	0	1	
0	1	0	1	0	D'
0	1	1	0	1	
0	1	1	1	0	D'
1	0	0	0	0	D
1	0	0	1	1	
1	0	1	0	1	1
1	0	1	1	1	
1	1	0	0	0	
1	1	0	1	0	0
1	1	1	0	0	
1	1	1	1	1	D

6)



A	B	C	F
0	0	0	1
0	0	1	0
0	1	0	1
0	1	1	0
1	0	0	0
1	0	1	1
0	1	0	1
1	1	1	0