3-5.

A	B	C	OUT
0	0	0	1
0	0	1	0
0	1	0	1
0	1	1	0
1	0	0	1
1	0	1	0
1	1	0	0
1	1	1	0

3-7. when A=0, B=1 or A=1, B=0. OUTPUT connects both ground and high voltage

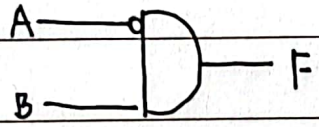
3-21 Cin 0

A	0	1	1	1
B	1	0	1	1
S	1	1	0	0
Cout	0	0	1	1

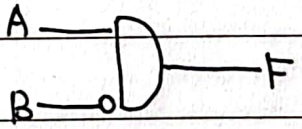
$7 + 11 = 18 \neq 12$

Not the same because Cout is not added.

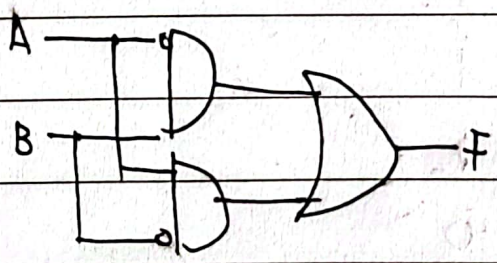
3-24. a.



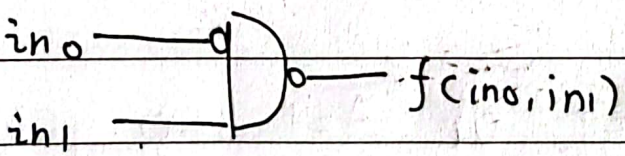
b.

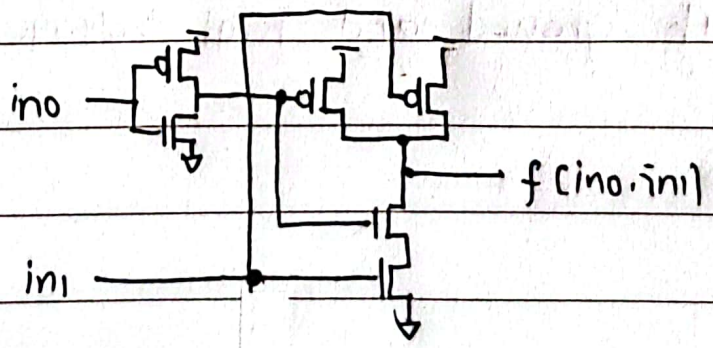


c.



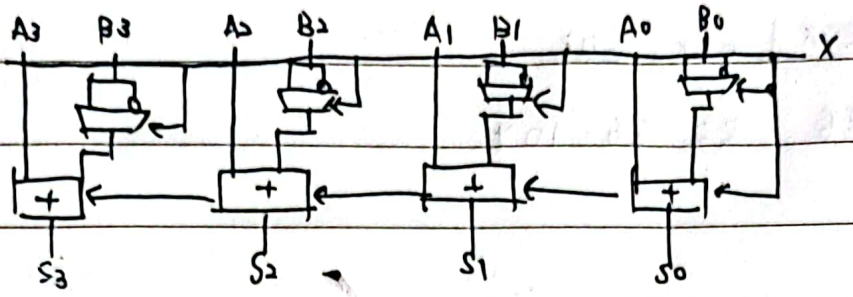
3-26.





3-30 (a) X choose B or C to add A, when X=0: S=A+B

when X=1, S=A+C

(b) 

4-5. a. 3: 0000 0000 0000 0000

6: 1111 1110 1101 0011

b. (1) 0: 7147

1: -4057

(2) 101 → e

(3) 0000 0110 1101 1001 1111 1110 1101 0011

$1.1011001111111011010011 \times 2^{-114}$

(4) 0: 7747

1: 6477

c. 0001 1110 0100 0011: ADD the contents of R1 to the contents of R3, and store the result in R7

d. Location 6, 1111 1110 1101 0011

4-7. OP:6, R:5 So $-2^{15} \sim 2^{15}-1$

4-13. APP [eax], edx: 303

APP R6 R2 R6: 104