

Binary Representation (Output)

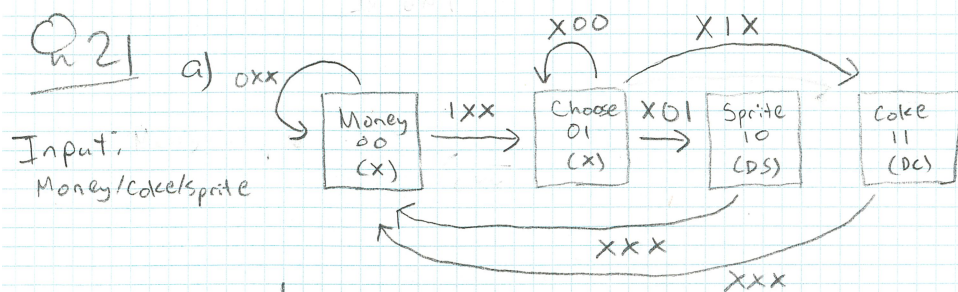
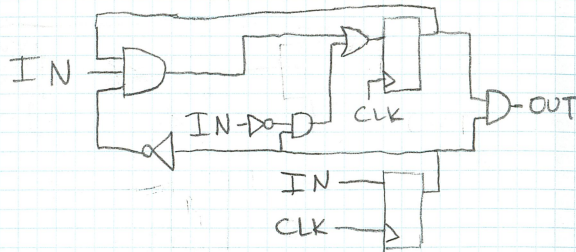
c)

Current	(IN)		Next	Output
	0	1		
00	00	01	0	
01	10	01	0	
10	00	11	0	
11	10	01	1	

d) K-Map for B_0

$B_1 B_2$	00	01	10	11
0	0	0	0	0
1	0	0	0	0

$IN \cdot B_1 + IN \cdot B_1' \cdot B_0$
 $B_1 = IN$ clearly.



b)

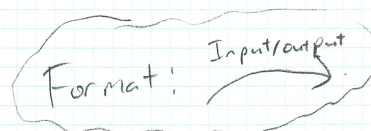
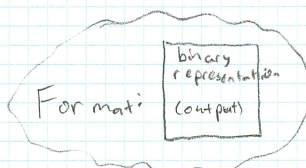
Current	000	001	010	011	100
000	000	001	010	011	100
001	001	010	011	100	101
010	010	011	100	101	110
011	011	100	101	110	111
100	100	101	110	111	000
101	101	110	111	000	001
110	110	000	001	010	011
111	111	001	010	011	100

xxx

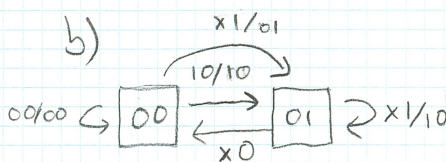
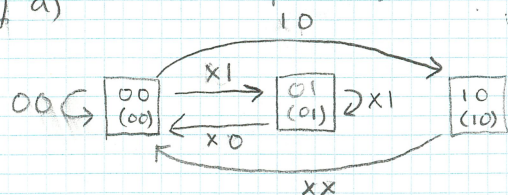
b)

Current	Next s'								ϵ^{IN}	Output
	000	001	010	011	100	101	110	111		
00	00	00	00	00	01	01	01	01	X	
01	01	10	11	11	01	10	11	11	X	
10	00	00	00	00	00	00	00	00	DS	
11	00	00	00	00	00	00	00	00	DC	

c) see second page



Q3 a) Format: Input = S_1, S_2 Output = D_1, D_2



c)