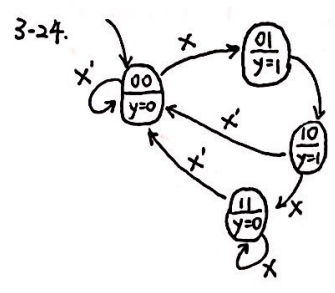


$n_1$   
 $h_0 =$   
 $r =$   
 blem  
 $\downarrow$   
 $S$   
 $4$   
 $uT =$   
 $put$   
 $xy$   
 $z$

$V \geq 70$   
 $H7.$

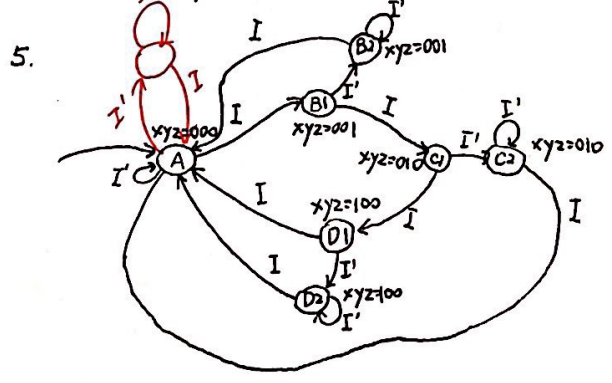
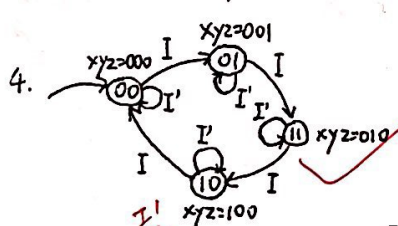
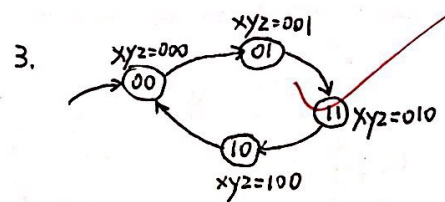
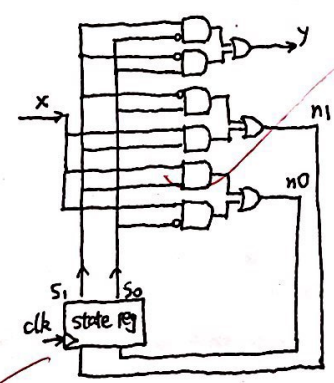
100



2. the state table is

s1	s0	x	n1	n0	y
0	0	0	0	0	0
0	0	1	0	1	0
0	1	0	1	0	1
0	1	1	1	0	1
1	0	0	0	0	1
1	0	1	1	1	1
1	1	0	0	0	0
1	1	1	1	1	0

$\therefore n1 = s0s1' + s1x$   
 $n0 = s1x + s0'x$   
 $y = s1's0 + s1s0'$



-2



encode it with states: A: 000 B: 001 B2: 010 C1: 011 C2: 100 D1: 101 D2: 110.

s2	s1	s0	I	n2	n1	n0	x	y	z
0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	1	0	0	0
0	0	1	0	0	1	0	0	0	1
0	0	1	1	0	1	1	0	0	1
0	1	0	0	0	1	0	0	0	1
0	1	0	1	0	0	0	0	0	1
0	1	1	0	1	0	0	0	1	0
0	1	1	1	1	0	1	0	1	0
1	0	0	0	1	0	0	0	1	0
1	0	0	1	0	0	0	0	1	0
1	0	1	0	1	1	0	1	0	0
1	0	1	1	0	0	0	1	0	0
1	1	0	0	1	1	0	1	0	0
1	1	0	1	0	0	0	1	0	0
1	1	1	0	X	X	X	X	X	X
1	1	1	1	X	X	X	X	X	X

$$n2 = s1s0 + s2I'$$

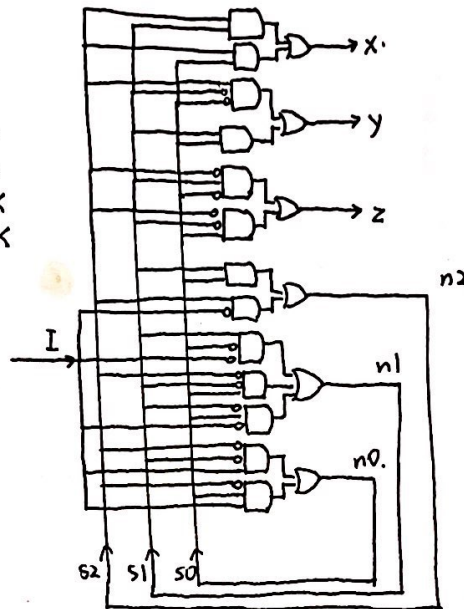
$$n1 = s1s0'I' + s2's1's0 + s1's0I'$$

$$n0 = s2's1'I + s2's0I$$

$$x = s2s1 + s2s0$$

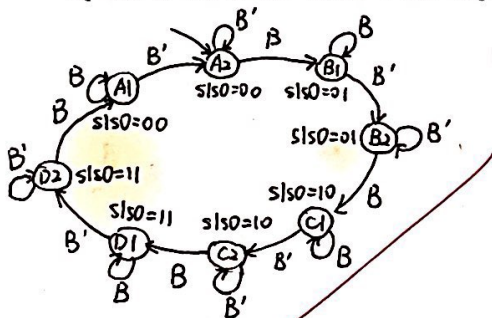
$$y = s2's1's0 + s1s0$$

$$z = s2's1s0' + s2's1's0$$



7.8. When a button is 1 and keeps on, it will remain in the first state. only when the button returns to 0.

it reaches the second state, where the state is ready to change the output.



I2	I1	I0	B	n2	n1	n0	s1	s0
0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	1	0	0
0	0	1	0	0	1	0	0	1
0	0	1	1	0	0	1	0	1
0	1	0	0	0	0	1	0	1
0	1	0	1	0	1	0	0	1
0	1	1	0	1	0	0	1	0
0	1	1	1	1	0	1	1	0
1	0	0	0	1	0	0	1	0
1	0	0	1	1	0	1	1	0
1	0	1	0	1	1	0	1	1
1	0	1	1	1	1	0	1	1
1	1	0	0	1	1	0	1	1
1	1	0	1	0	0	0	0	0
1	1	1	0	1	1	1	0	0

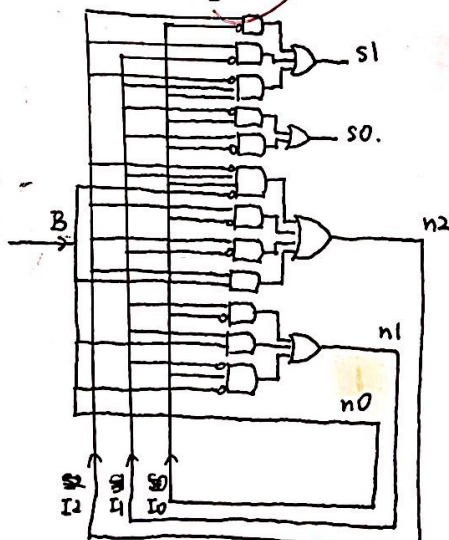
$$n2 = I2'I1I0B' + I2I0' + I2I1' + I2B$$

$$n1 = I1I0' + I1B + I1'I0B'$$

$$n0 = B$$

$$s1 = I2I0' + I2I1' + I2'I1I0$$

$$s0 = I1'I0 + I1I0'$$



(3.4.2 is also shown here).

