

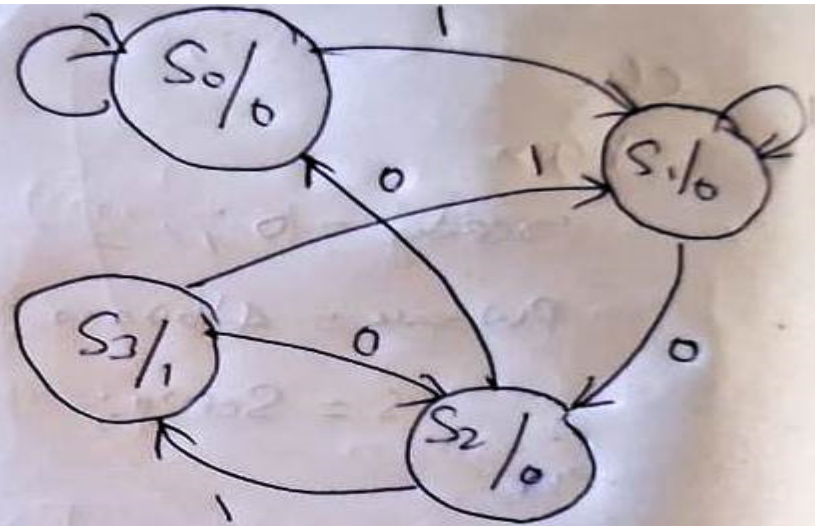
Present State $y_1 y_0$	Next state		Output z
	$w=0$ $y_1 y_0$	$w=1$ $y_1 y_0$	
00	00	01	0
01	10	01	0
10	00	11	0
11	10	01	1

		Kmap y_1			
$y_1 y_0$	w	00	01	11	10
0	0		1	1	
1	1				1

		Kmap y_0			
$y_1 y_0$	w	00	01	11	10
0	0				
1	1	1	1	1	1

$$y_1 = \bar{w} y_0 + w y_1 \bar{y}_0$$

$$y_0 = w$$



	0	1
0		
1		1

$$Z = y_1, y_0$$

Derivation for logical expression

$$y_0 = w$$

$$y_1 = \bar{w} y_0 + w y_0 \bar{y}_0$$

$$Z = y_1 y_0$$

