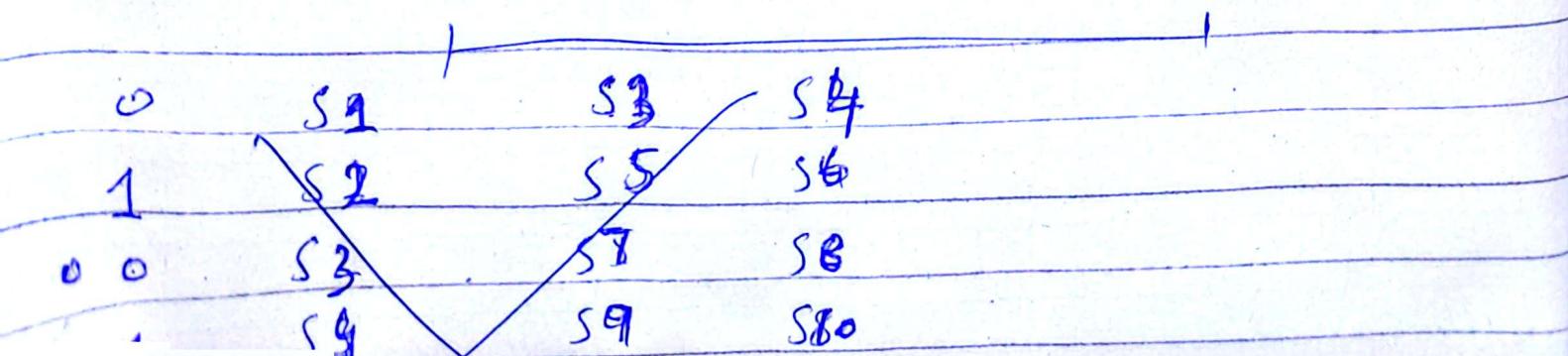


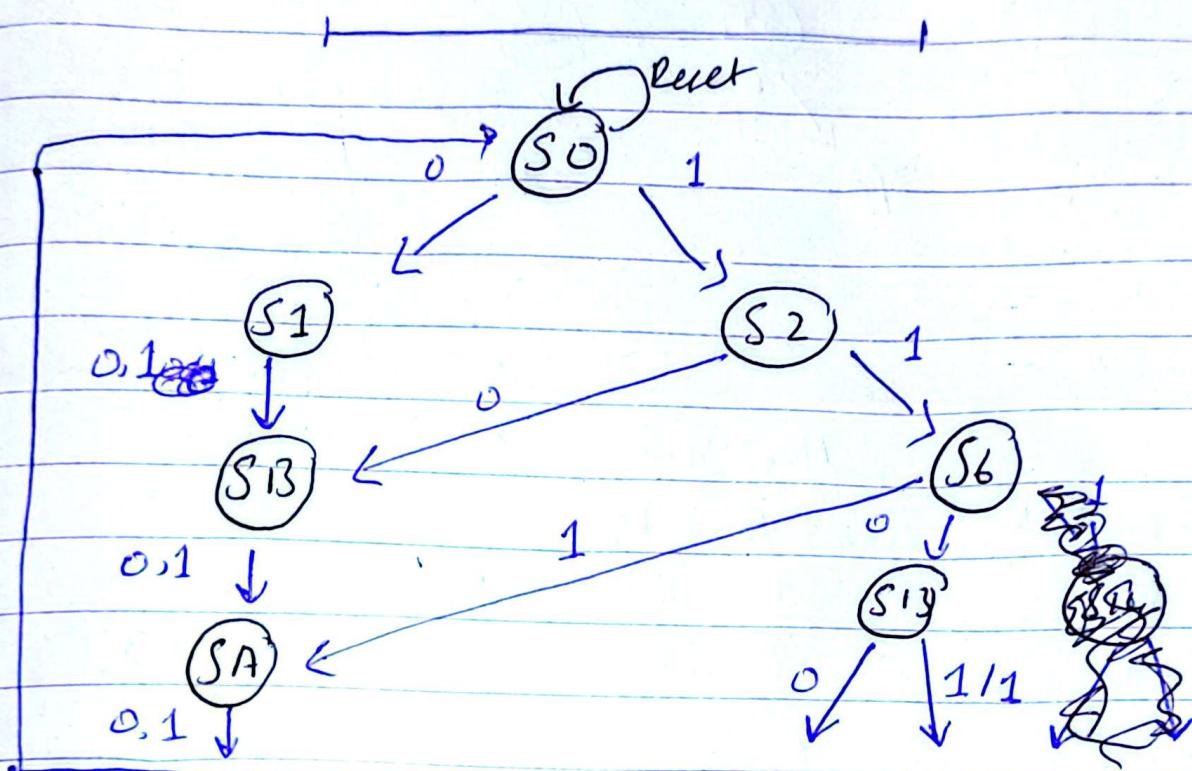
input scan.	Present State	Next State Register		Next State Output	
		X=0	X=1	X=0	X=1
Reset	S0	S1	S2	0	0
0	S1	S3	S4	0	0
1	S2	S5	S6	0	0
0 0	S3	S7	S8	0	0
0 1	S4	S9	S10	0	0
1 0	S5	S11	S12	0	0
1 1	S6	S13	S14	0	0
0 0 0	S7	S0	S0	0	0
0 0 1	S8	S0	S0	0	0
0 1 0	S9	S0	S0	0	0
0 1 1	S10	S0	S0	0	0
1 0 0	S11	S0	S0	0	0
1 0 1	S12	S0	S0	0	0
1 1 0	S13	S0	S0	0	1*
1 1 1	S14	S0	S0	0	0



$$SA = S7 = S8 = S9 = S10 = S11 = S12 = S14$$
$$SB = S3 = S4 = S5$$

input	Present State	Next State		Output	
		$X=0$	$X=1$	$X=0$	$X=1$
Reset	$S_0$	$S_1$	$S_2$	0	0
0	$S_1$	$S_3$	$S_4$	0	0
1	$S_2$	$S_5$	$S_6$	0	0
00	$S_3$	$S_7$	$S_8$	0	0
01	$S_4$	$S_9$	$S_{10}$	0	0
10	$S_5$	$S_{11}$	$S_{12}$	0	0
11	$S_6$	$S_{13}$	$S_{14}$	0	0
110	$S_{13}$	$S_0$	$S_0$	0	1
remaining	$S_A$	$S_0$	$S_0$	0	0

input seq.	Present State	Next State		Output Present State	
		$x_{20}$	$x_{21}$	$x_{20}$	$x_{21}$
Reset	$S_0$	$S_1$	$S_2$	0	0
0	$S_1$	$S_B$	$S_B$	0	0
1	$S_2$	$S_B$	$S_6$	0	0
11	$S_6$	$S_{13}$	<del><math>S_A</math></del>	0	0
0001, 10	$S_B$	$S_A$	$S_A$	0	0
.	$S_A$	$S_0$	$S_0$	0	0
110	$S_{13}$	$S_0$	$S_0$	0	1



$$S_0 = 000$$

$$S_1 = 000\ 00\ 1$$

$$S_2 = 010$$

$$S_6 = 011$$

$$S_{13} = 0100$$

$$S_A = 101$$

$$S_0 = 110$$