

Present State

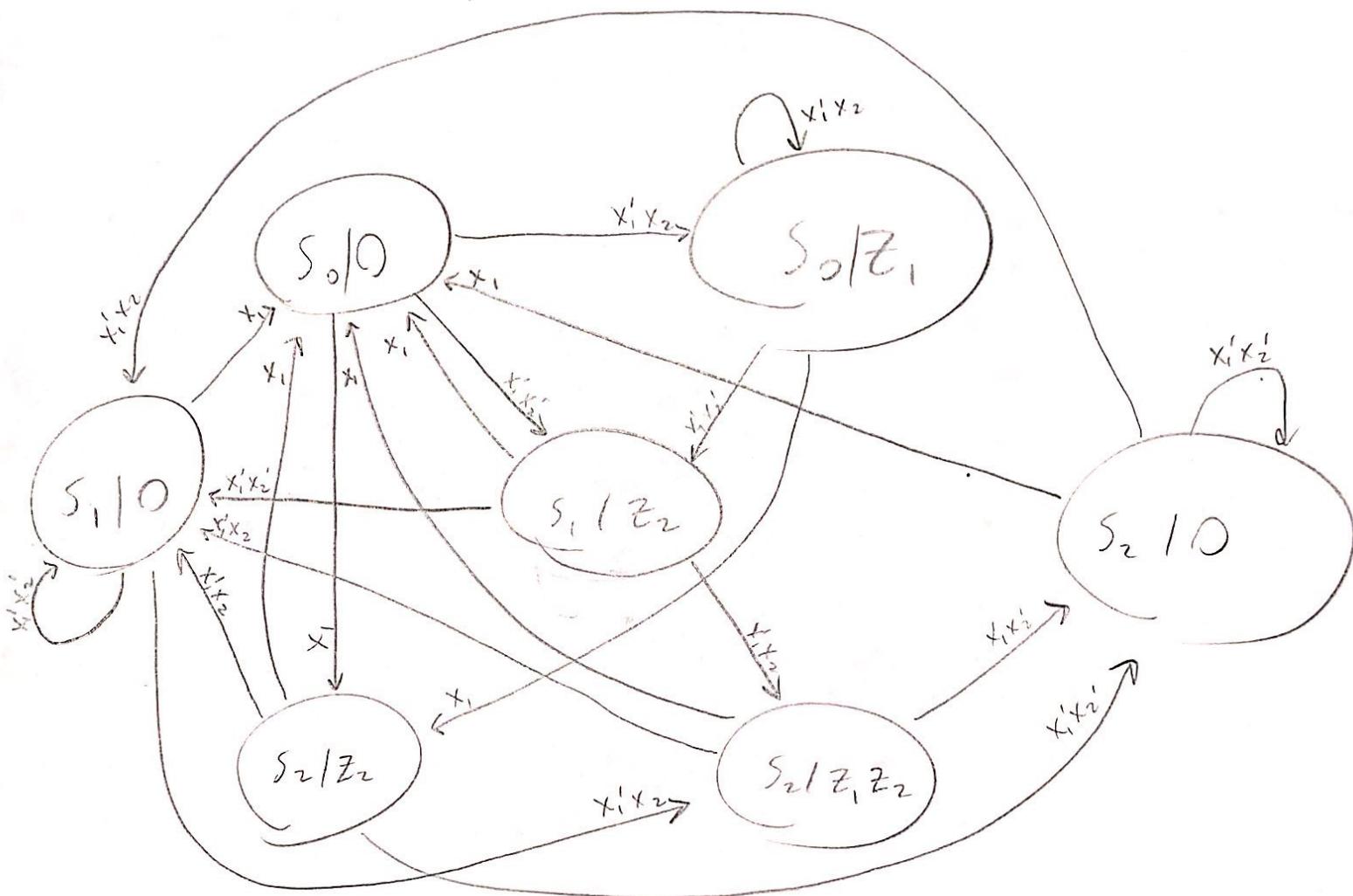
Next State

Present State	Next State					
	X_1	$X'_1 X_2$	$X'_1 X'_2$			
	state	SIP	state	SIP	state	SIP
S_0	S_2	Z_2	S_0	Z_1	S_1	Z_2
S_1	S_0	0	S_2	$Z_1 Z_2$	S_1	0
S_2	S_0	0	S_1	0	S_2	0

of states

$$\left. \begin{array}{l} S_2 \rightarrow 3 \\ S_1 \rightarrow 2 \\ S_0 \rightarrow 2 \end{array} \right\} 7 \text{ states}$$

Present state	Next state			Output
	X_1	$X'_1 X_2$	$X'_1 X'_2$	
$S_0, 0$	$S_2 Z_2$	$S_0 Z_1$	$S_1 Z_2$	0
S_0, Z_1	$S_2 Z_2$	$S_0 Z_1$	$S_1 Z_2$	Z_1
$S_1, 0$	$S_0 0$	$S_2 Z_1 Z_2$	$S_1 0$	0
S_1, Z_2	$S_0 0$	$S_2 Z_1 Z_2$	$S_1 0$	Z_2
$S_2, 0$	$S_0 0$	$S_1 0$	$S_2 0$	0
S_2, Z_2	$S_0 0$	$S_1 0$	$S_2 0$	Z_2
$S_2, Z_1 Z_2$	$S_0 0$	$S_1 0$	$S_2 0$	$Z_1 Z_2$



Rubric

(A) 1 point for showing correct inputs

1 point for showing correct outputs

3 points for getting correct answer

(B) 5 points for correct # of states

3 points for correct output associated with each state

2 points for correct connections