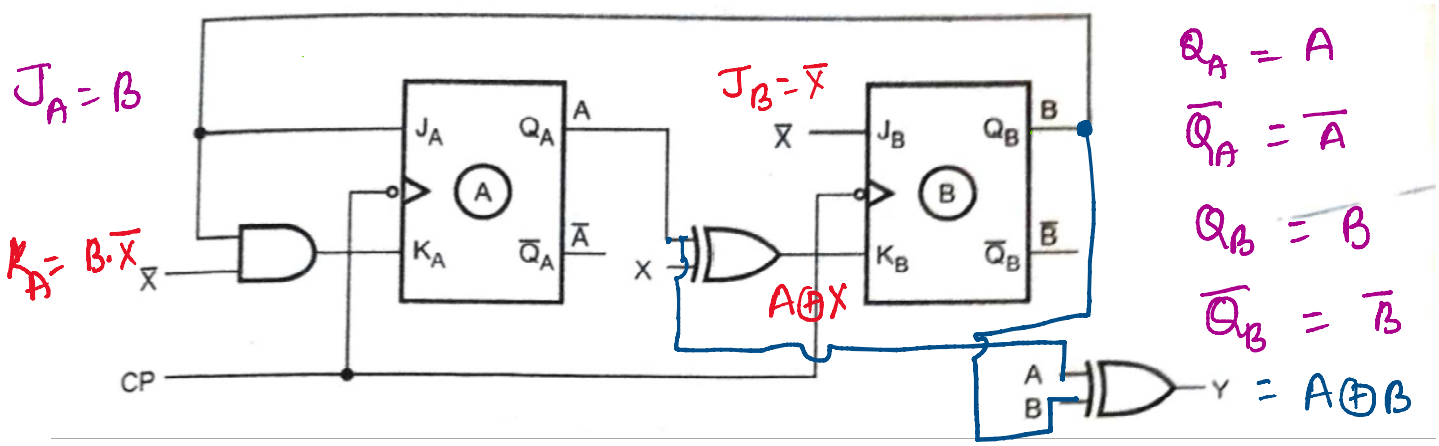
Moore machine



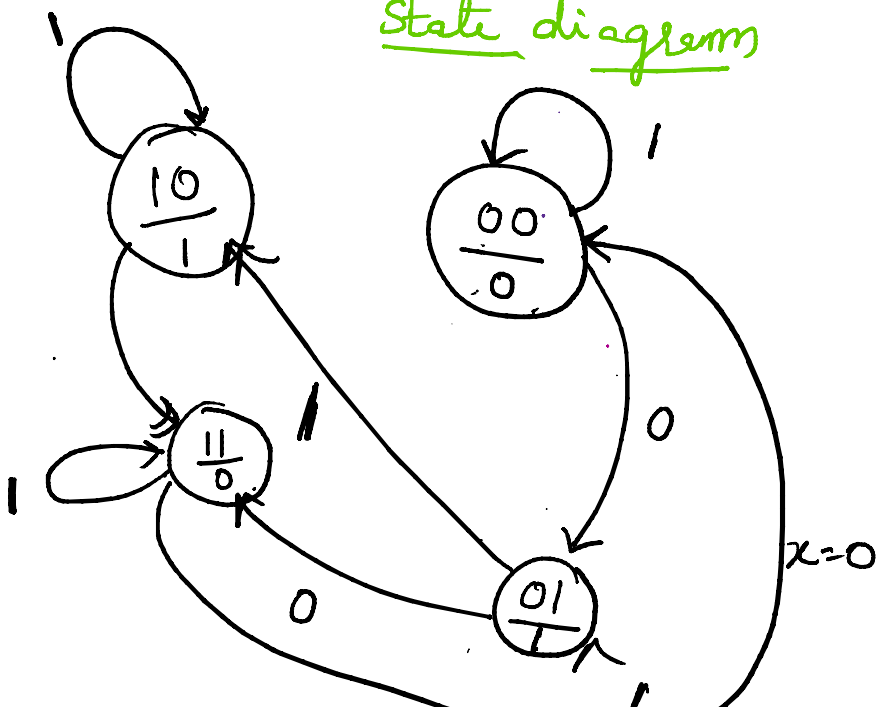
Case	Inputs			Outputs		Remark
	CLK	J	K	Q_{n+1}	$\overline{Q}_{n+1}$	
I	×	0	0	Q_n	$\overline{Q}_n$	No change
II	⎍(1)	0	0	Q_n	$\overline{Q}_n$	No change
III	⎍(1)	0	1	0	1	Reset
IV	⎍(1)	1	0	1	0	Set
V	⎍(1)	1	1	$\overline{Q}_n$	Q_n	Toggle

Fig7. Truth table of Master slave JK FF

QA QB AB Present state	X Input	JA=QB $J_A = B$	KA=$\overline{X}$QB $K_A = \overline{X} \cdot B$	JB=$\overline{X}$ $J_B = \overline{X}$	KB=QA⊕X $K_B = A \oplus X$	Next state QA(t+1)	Next state QB(t+1)	y = A ⊕ B
0 0	X=0 0	B=0 0	$K_A = 1 \cdot 0 = 0$ 0	$J_B = 1$ 1	$K_B = 0 \oplus 0 = 0$ 0	0	1	$0 \oplus 0 = 0$
A 0 B 0	X=1 1	$J_A = 0$	$K_A = 0 \cdot 0$ $K_A = 0$	$J_B = 0$	$K_B = 1$	0	0	$0 \oplus 0 = 0$
A 0 B 1	X=0	$J_A = B$ $J_A = 1$	$K_A = \overline{X}B$ $= 1 \cdot 1$ $= 1$	$J_B = \overline{X}$ $J_B = 1$	$K_B = A \oplus X$ $= 0 \oplus 0$ $= 0$	1	1	$0 \oplus 1 = 1$

Present state		Next state				Output
		X = 0		X = 1		
A	B	A	B	A	B	Y
0	0	0	1	0	0	0
0	1	1	1	1	0	1
1	0	1	1	1	0	1
1	1	0	0	1	1	0

State table

Present state		Next state				Output
		X = 0		X = 1		
A	B	A	B	A	B	Y
0	0	0	1	0	0	0
0	1	1	1	1	0	1
1	0	1	1	1	0	1
1	1	0	0	1	1	0

State diagram