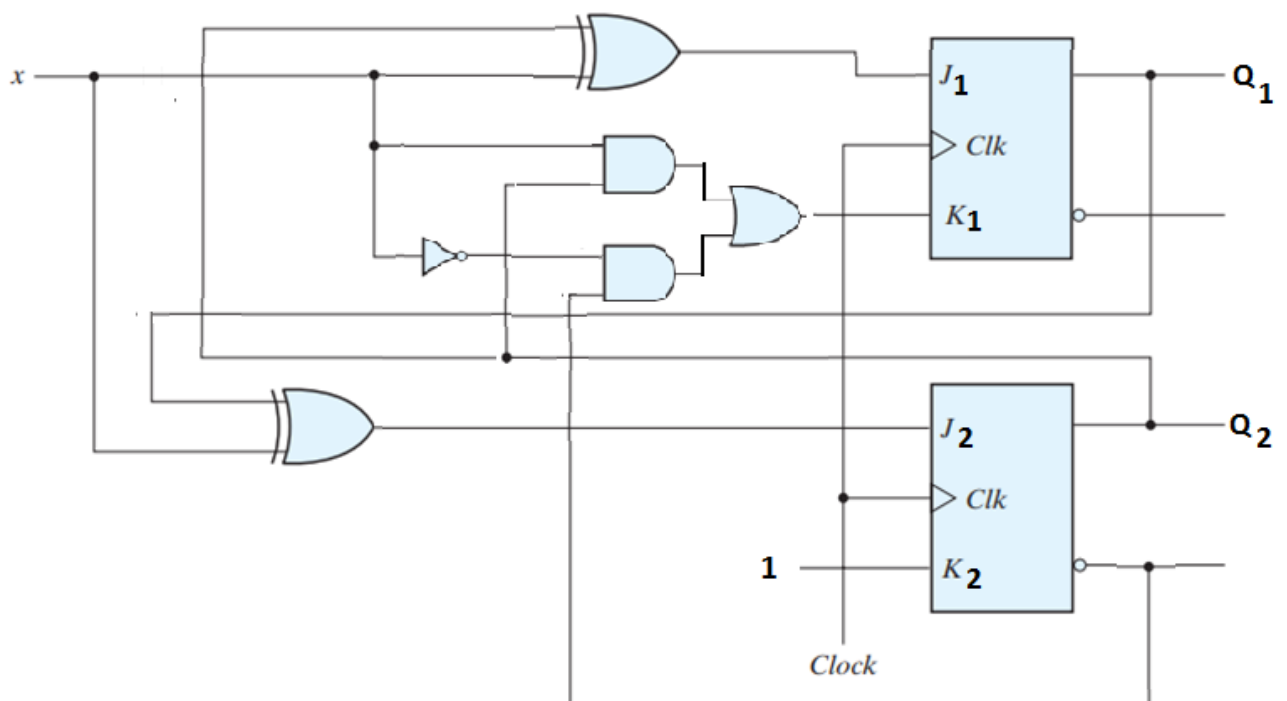**Sequential Circuit Synthesis**

Y-0016/003D and 001D board (given in next page)

Verfiy the truth table of JK, D and T type Flipflops.

1. For the circuit given below formulate the truth table and the state diagram. Here, X represents the input, and Q represents the outputs (the states) of the JK type flip flops. Then, implement the circuit and verify your results.

SR Flip-flop			
Q(t)	Q(t+1)	S	R
0	0	0	X
0	1	1	0
1	0	0	1
1	1	X	0

D Flip-flop		
Q(t)	Q(t+1)	DR
0	0	0
0	1	1
1	0	0
1	1	1

JK flip-flop			
Q(t)	Q(t+1)	J	K
0	0	0	x
0	1	1	x
1	0	x	1
1	1	x	0

T flip-flop		
Q(t)	Q(t+1)	DR
0	0	0
0	1	1
1	0	1
1	1	0