Excitation Tables

☐ The excitation table helps us in determining the necessary input conditions for transitioning between different states.

SR Flip-Flop

Q	Q+	S	R
0	0	0	X
0	1	1	0
1	0	0	1
1	1	X	0

D Flip-Flop

Q	Q+	D
0	0	0
0	1	1
1	0	0
1	1	1

JK Flip-Flop

Q	Q+	J	K
0	0	0	X
0	1	1	X
1	0	X	1
1	1	X	0

T Flip-Flop

Q	Q+	T
0	0	0
0	1	1
1	0	1
1	1	0

Universal Shift Register (Diagram):