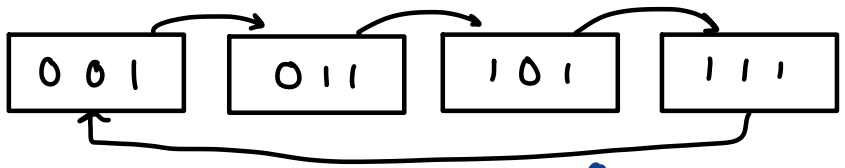
3)

a)



b)

Q_2	Q_1	Q_0	Q_2^+	Q_1^+	Q_0^+
0	0	1	0	1	1
0	1	1	1	0	1
1	0	1	1	1	1
1	1	1	0	0	1

Q_2^+:

Q_0 \ Q_2Q_1	00	01	11	10
0	d	d	d	d
1	0	1	0	1

$Q_2^+ = \bar{Q}_2 Q_1 + Q_2 \bar{Q}_1$

$= Q_2 \oplus Q_1$

Q_1^+:

Q_0 \ Q_2Q_1	00	01	11	10
0	d	d	d	d
1	1	0	0	1

$Q_1^+ = \bar{Q}_1$

Q_0^+:

Q_0 \ Q_2Q_1	00	01	11	10
0	d	d	d	d
1	1	1	1	1

$Q_0^+ = 1$

c) Q_2^+ has eqn. for T Flip Flop

Q_1^+ has eqn. for opposite D-Flip Flop

Q_0^+ has eqn. for D-Flip Flop

Use D-Flip Flops