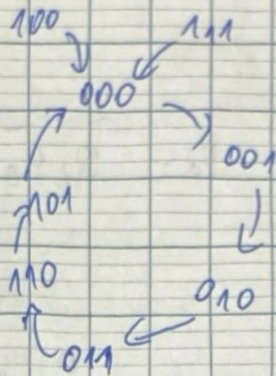


Tên: Trần Công Minh

MSSV: 23647061

Câu 1: Thiết kế mạch duy trì hiện (cho phép lựa chọn FF)



Câu 2: Thiết kế mạch đếm nối tiếp, 1 → 2 → 3 → 4 → 5 rồi lặp lại (cho phép lựa chọn FF)

Mạch đếm

Câu 1:

Hiện tại			Hệ tiếp			D_2	D_1	D_0
Q_2	Q_1	Q_0	Q_2^+	Q_1^+	Q_0^+			
0	0	0	0	0	1	0	0	1
0	0	1	0	1	0	0	1	0
0	1	0	0	1	1	0	1	1
0	1	1	1	1	0	1	1	0
1	0	0	0	0	0	0	0	0
1	0	1	0	0	0	0	0	0
1	1	0	1	0	1	1	0	1
1	1	1	0	0	0	0	0	0

D_2	Q_2	Q_1	Q_0	
Q_2	00	01	11	10
0			(1)	
1	(1)			

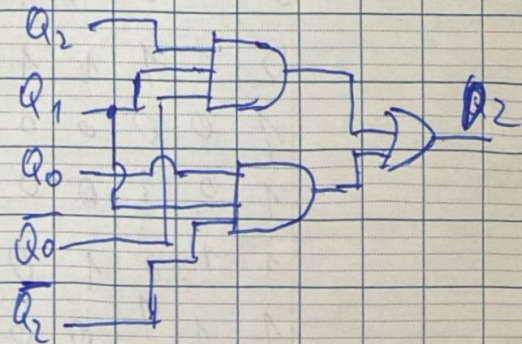
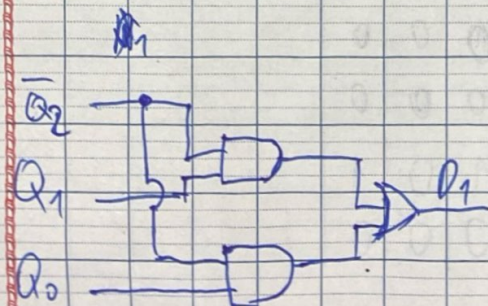
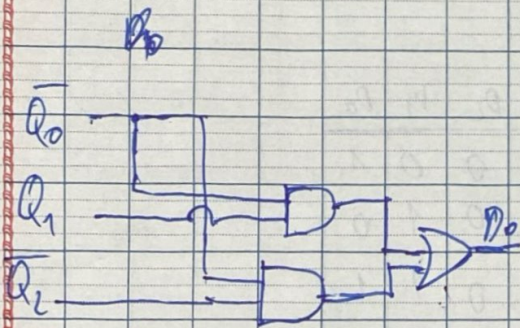
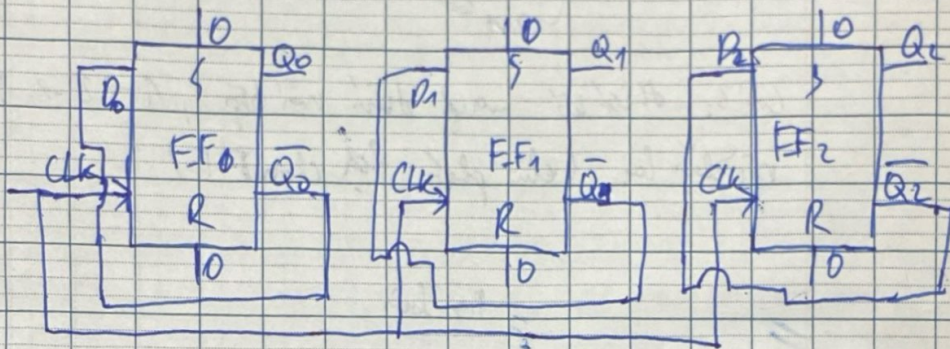
$$D_2 = Q_2 Q_1 \bar{Q}_0 + \bar{Q}_2 Q_1 Q_0$$

P_1	Q_2	Q_1	Q_0
0	0	0	1
0	0	1	1
1	0	1	1
1	1	0	1

$$P_1 = \bar{Q}_2 Q_1 + Q_2 \bar{Q}_0$$

P_0	Q_2	Q_1	Q_0
0	0	0	1
0	0	1	1
1	0	1	1
1	1	0	1

$$P_0 = \bar{Q}_2 \bar{Q}_0 + Q_1 \bar{Q}_0$$



Ques 2:

Q_2	Q_1	Q_0	$S+R$
0	0	1	
0	1	0	
0	1	1	
1	0	0	
1	0	1	
1	1	0	1
1	1	1	X
0	0	0	X

Q_2	Q_1	Q_0	$S+R$
0	0	1	
0	1	0	
0	1	1	
1	0	0	
1	0	1	
1	1	0	1
1	1	1	X
0	0	0	X

$$S+R = Q_2 Q_1$$

