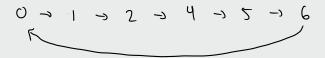
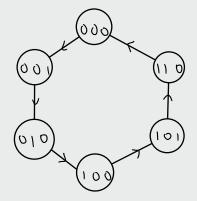
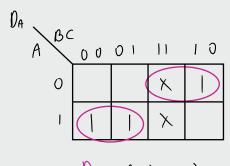
· Implement the sequential circuit needed for the counter of the following sequence (using D flip flops)



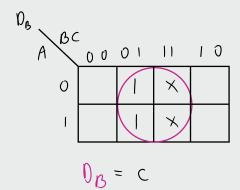
Q(t)	Q(t + 1)	D
0	0	0
0	1	1
1	0	0
1	1	1



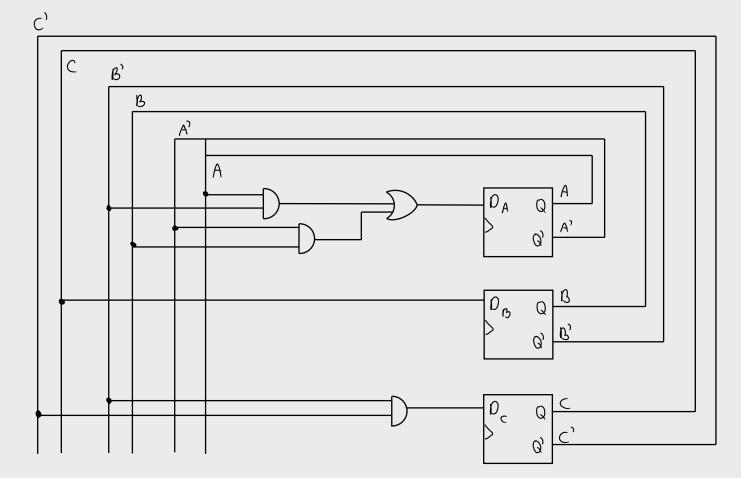
	$Q(\epsilon)$			Q(+1)					
	A	B	C	A	B	C	DA	0,	D_c
0 1 2 4 10 0	0 0 0	0 0 1	0 - 0 0 - 0	0 0 1 1 0	0 0 0 0	00-00-	0 0 1 1 0	0 - 0 0 - 0	1 0 0 0



$$D_A = A B' + A' B$$



\mathcal{D}^{c}						
A	BC	00	01	11	1 3	0
	0			X		
	ı			×		
	·	D, =	- B)(ر)		



$$D_A = A B' + A'B$$
 $D_B = C$ $D_c = B'C'$

Unused state 011

$$\frac{A B C}{O I I}$$

$$0_A = AB' + A'B$$

$$= 0 I' + O'I = 1$$

$$Q(t+I) = Q(t)'$$

$$0_c = B'C' = I'I' = 0$$

$$Q(t+I) = Q(t)$$

$$Q(t+I) = Q(t)$$

Since the invalid states transition into valid states, then this circuit is self-correcting

Unused State 111

$$\begin{array}{c|cccc}
A & B & C \\
\hline
 & & & & & \\
\hline
 & & & & \\
\hline
 & & & & \\
\hline
 & & & & \\
\hline
 & & &$$

