

Take home - assignment - 2 (Unit - 3)

① MOD-6 Counter using JK Flip Flop

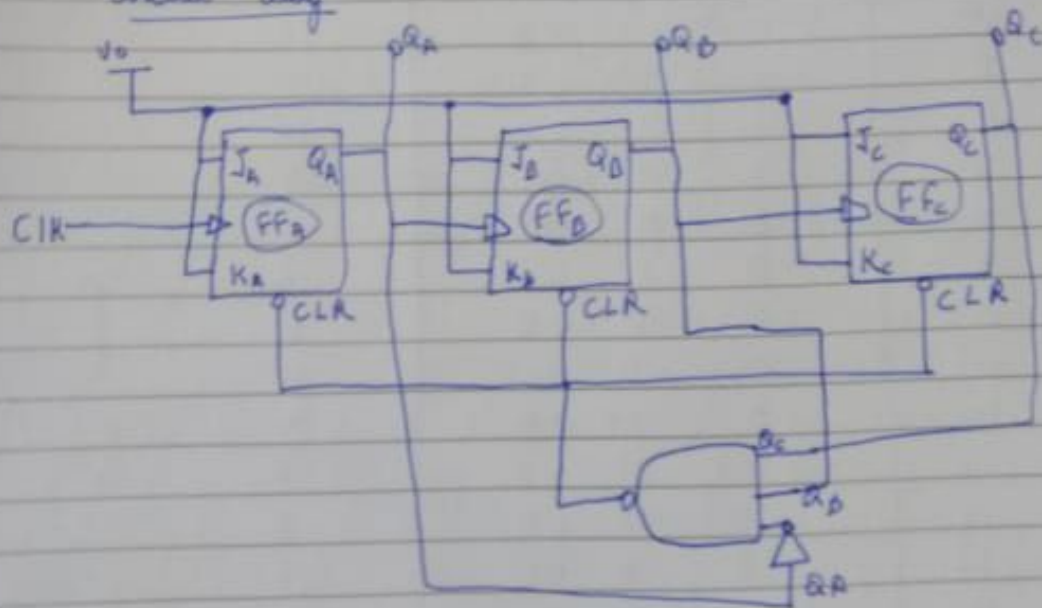
A) asynchronous MOD-6 Counter

No of flip flop = 3

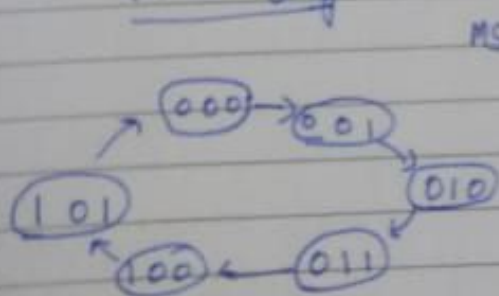
No of state = 6

Maximum count = 6 - 1 = 5

circuit diag



State diag

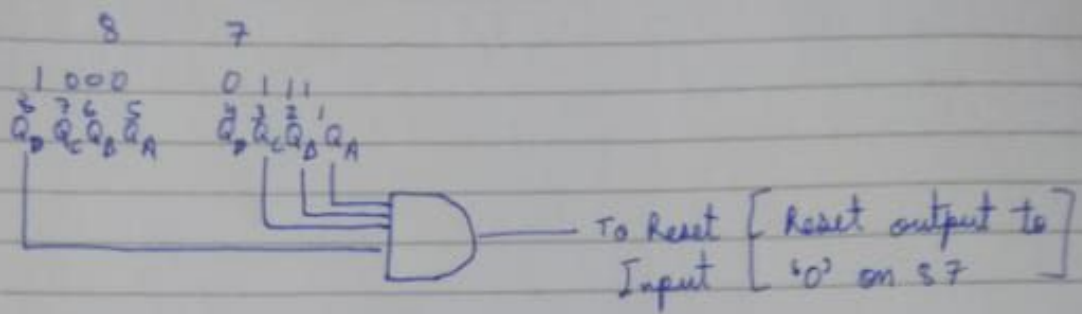


MSB ← Q_C Q_B Q_A → LSB

Q_C	Q_B	Q_A	Decimal eq.
0	0	0	0
0	0	1	1
0	1	0	2
0	1	1	3
1	0	0	4
1	0	1	5
1	1	0	6 (against start from 0)

when ever we will reach (110) 6 we will reset counter to 0 and will use Nand Gate to achieve this.

② MOD-87 using IC 7490



circuit diag

