* Digital Electronics and Logic Design (DELD) - Practical Number - 11

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Title :-
Decade Counter

Aim :-
Realization of Mod-N counter using Decade Counter (IC7490).

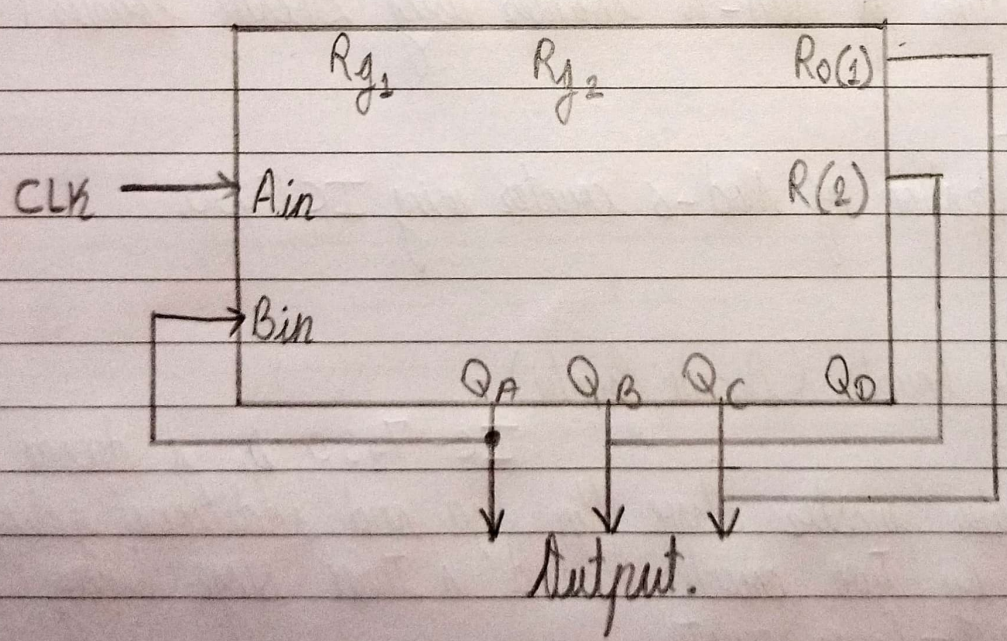
Objective :-
Realization of Mod-6 counter using IC 7490.

Theory :-
Ripple Counter (Decade Counter) -
IC-7490 is a decade counter, It contain four master slave flip flop and additional gating to provide a divide by two counter and a three stage binary counter which provide a ÷ by 5 counter.

Mod-6 Counter:-

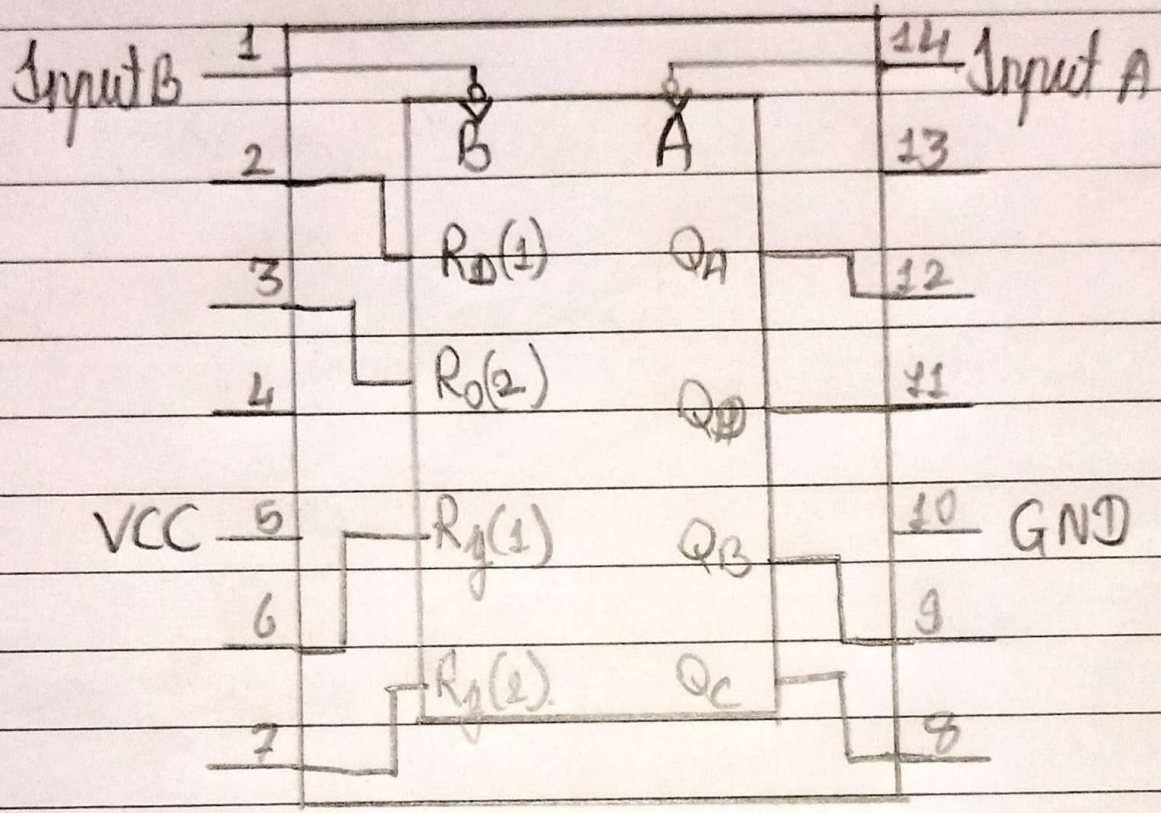
Mod counter are cascaded counter circuits which count to a set modulus value before resting Mod-6.

CLK Pulse	Q_A	Q_B	Q_C
Initial=0	0	0	0
1	0	0	1
2	0	1	0
3	0	1	1
4	1	0	0
5	1	0	1
6	Reset to Zero		



IC used:-

① IC 7490 [Decade counter]



Conclusion:-

Hence, we have realized a Mod-6 counter using IC 7490.