Probability Hardware Assignment

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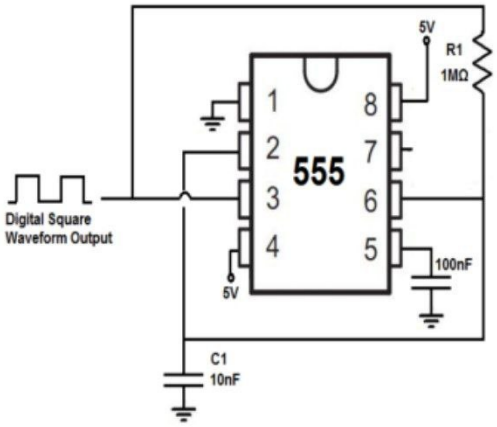
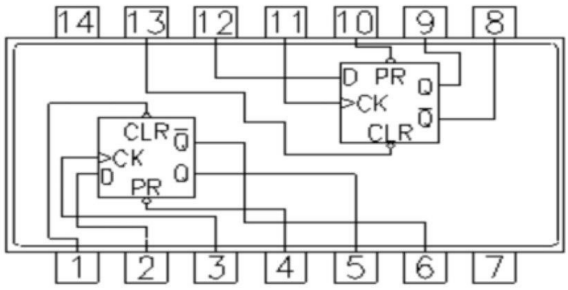
***Abstract*—In this assignment we have made a Random number generator using shift registers**

Procedure

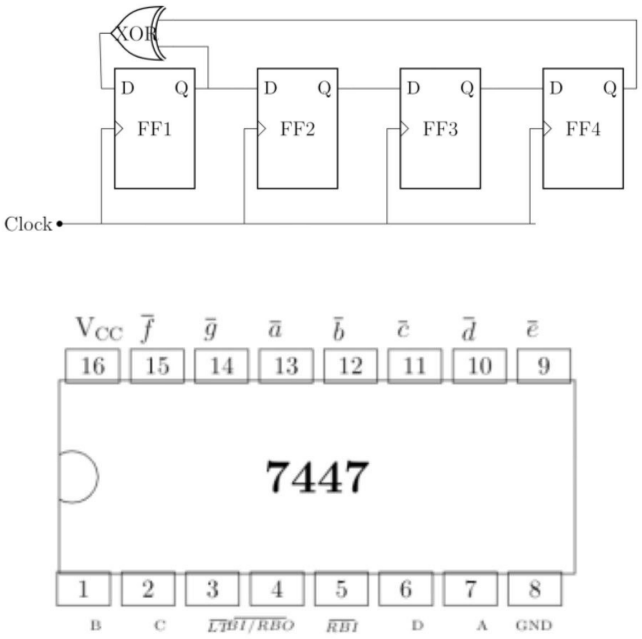
1) We connected the 555 timer circuit according to the figure **??**



2) Then we connected Clock output of 555 timer circuit to the clock signal of D-Flip flops
3) Now we make the circuit for shift registers using a 4 D-Flip flops (using two 7474 IC's)



4) Then we connected XOR gate (7486 IC) according to the figure 4
5) then we connected the decoder (7447 IC) and connected its A,B,C,D with Q_0,Q_1,Q_2,Q_3 respectively as per the figure 5
6) Then we connected The seven segmented display and then connected it with the dceoder



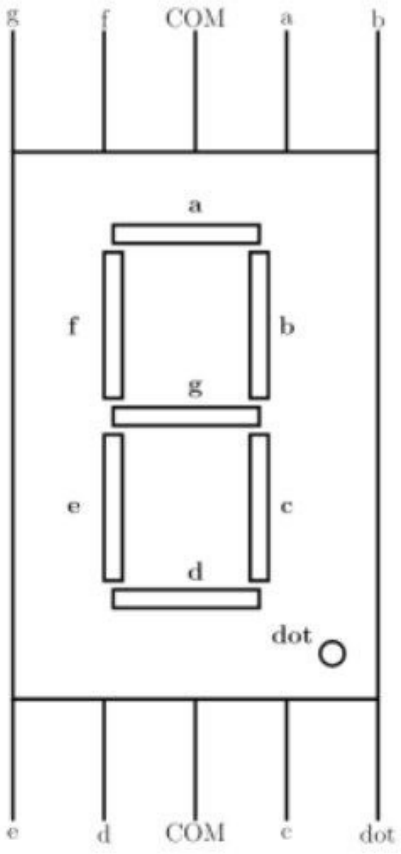
(7447 IC) according to the table 6 and the figure 6

7447	$\bar{a}$	$\bar{b}$	$\bar{c}$	$\bar{d}$	$\bar{e}$	$\bar{f}$	$\bar{g}$
Display	a	b	c	d	e	f	g

7) We connected all the independent parts with each other and then connected the power source

Output

Output was changing digits on the seven segment display the output is shown in figure 7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