THEORY OF COMPUTATION

Assignment

1. Design Deterministic Finite Automata which contains Even a's and Even b's in a string.

2. Convert the following NFA to its equivalent DFA.

	0	1
->q0	q0	q1
q1	q1,q2	q1
*q2	q2	q1,q2

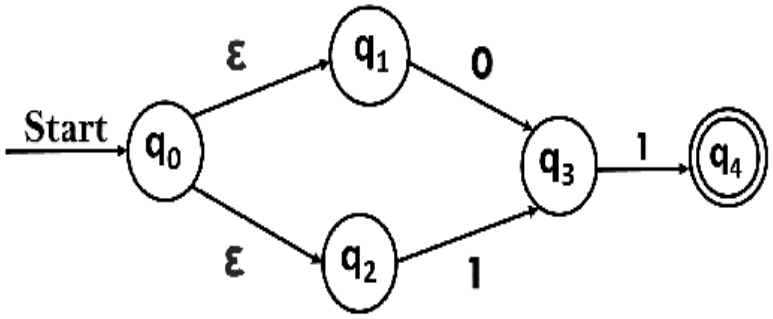
*represents final state

3. Produce the Minimized DFA of the following DFA with the help of equivalence method and also draw the minimized DFA.

	0	1
->q0	q1	q5
q1	q6	q2
*q2	q0	q2
q3	q2	q6
q4	q7	q5
q5	q2	q6
q6	q6	q4
q7	q6	q2

*represents final state

4. Convert ϵ-NFA to DFA of the given State Diagram. And Show the Step by Step Process.



5. Convert the following Moore machine into its equivalent Mealy machine.

Present State	Input 0	Input 1	Output
A	A	B	0
B	C	B	1
C	B	C	0
D	C	C	1