BRAC UNIVERSITY
CSE331 : Automata and Computability
Assignment 2

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1. Draw the state diagram of an NFA for the following RL over {0, 1}:

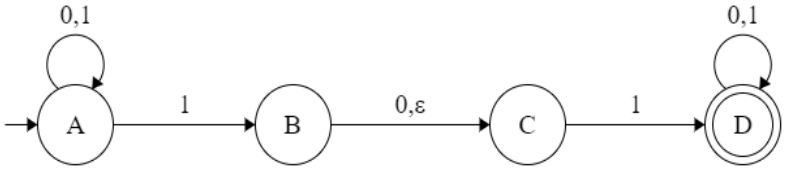
A. L(M) → {w ∈ Σ* | w contains 1001 or 11}. (use 5 states)

B. L(M) → {w ∈ Σ* | w contains a 1 in the third position from the end}.

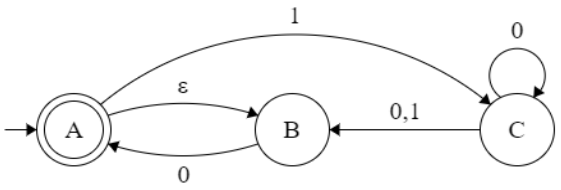
C. L(M) → {w ∈ Σ* | length of w is a multiple of 2 or 3}.

2. Convert the following NFA into DFA:

A.



B.



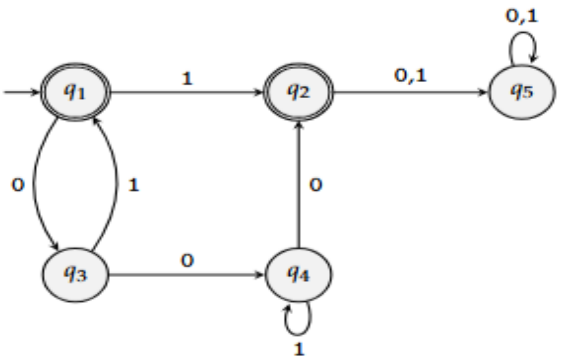
3. Convert the following RE into NFA:

A. 1 0 (0 1 | 0)*

B. (0 | 0 1* 0)* 0 1* 0

4. Convert the following DFA into RE:

A.



B.