Indian Institute of Information Technology, Allahabad

Department of Information Technology

Theory of Computation

Date: 2-09- 2022 **Marks: 10**

Practical Questions: Set 3

Write a C or C++ programs for the following:

1) Simulate of NFA for the following languages and verify the NFA by check with at least 5 strings:

   a) L= { w ∈ Σ *| w contains at least two 0s, or exactly two 1s } –(with six states)

   b) L= {abab^n : n≥0} (no more than 5 states)

2) Find the RE for the Following Langauges verify the NFA by check with at least 5 strings:

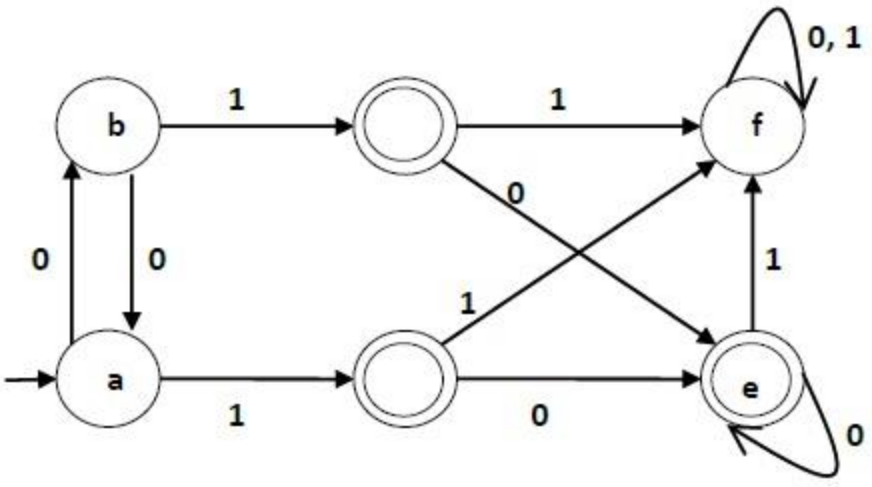
   a) L= { w ∈ {a,b}* | w does not end in a double letter }

   b) L = {a^{n}b^m: (n+m) is even}

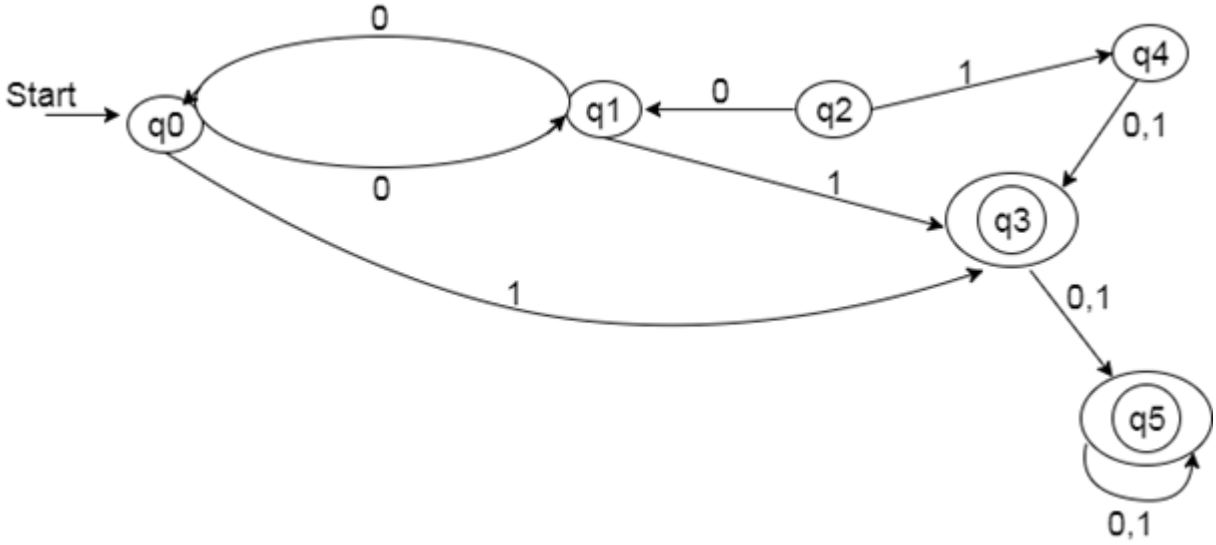
3) Construct a minimized DFA for the following DFA use both methods:

   (Input and Output should be Transition table)

   (a)



(b)



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