**DARBHANGA COLLEGE OF ENGINEERING, DARBHANGA**

 TIME- 45 minutes

Date- 03/04/2018

Branch-CSE(VI-sem)

Subject- FLAT(TOC)

CLASS TEST

Answer any 3 questions :-----

1. Write Regular Expression for the following Finite Automata. Convert the NFA given in Figure to its equivalent DFA.

a, b

b

a

1. Construct deterministic finite automaton for the regular expression a, abc, (ab + cd), a\*, (abc)\*, (ab + cd)\* .
2. Construct a Moore machine that takes binary number as input and produces “residue modulo 3” as output.
3. Construct minimal DFA that accepts all binary number which are divisible by 5 and starts with 1.

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