**Birla Institute of Technology and Science Pilani**

**1st Sem 2012-13 CS C351 Theory of computation**

**Take Home Evaluated Tutorial 3**

**Max Marks : 4**

**Date of Posting : 27th Aug 2012**

**Date of Submission : 28th Aug 2012**

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**Submit a handwritten solution on A4 paper. At the top left hand corner, write your ID and name. On the top right corner write your section number and instructor’s name. Mention the serial number of the tutorial. Submit to your instructor during the tutorial *only.* At the top of the sheet please write the statement ‘*I have worked out this tutorial with my own effort’* and sign underneath. Write only those answers for which marks are indicated, with the correct question number.**

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**Q1. Convert the following regular expression into NFA using Thompson's construction algorithm**

**a+b\*c\*∪a\*b+c\*∪a\*b\*c+ 2M**

**Q2. Draw DFA for the following language L**

**L = {w|w is a string over {a,b} and number of b is in multiples of *five* and number of a is in multiple of *three*}**

**2M**