

MID SEMESTER EXAMINATION – CS205M

Full marks – 27

2nd October, 2012

PART A

1. Copy the following text at the very beginning of your answer script and sign below it. [2 marks]

I PROMISE NOT TO COMMIT ANY ACADEMIC DISHONESTY.

2. Given a regular expression r , prove that there exists a finite automaton M s.t. $L(r) = L(M)$. [15 marks]
3. Show the equivalence of a final state pushdown automaton and an empty stack pushdown automaton. [10 marks]