

M. Sc. 1st Semester Examination – 2019 (DDE)

(Old Syllabus)

Subject: Computer Science

Paper: MCS – 101 (Advanced Data Structures and Algorithms)

Full Marks: 22½

Time: 1 Hour

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Answer question number 1 and any three questions from the rest.

- 1) Write short note on any one of the following: 7½
 - a) Notations for Asymptotic Analysis of algorithms
 - b) Graph Traversal Algorithms
- 2) Write down the algorithm to evaluate postfix expression. 5
- 3) Design an algorithm of “Merge Sort” 5
- 4) Write down the algorithm of Binary Search Method. 5
- 5) Write code / algorithm to insert a new node in binary search tree (BST). 5
- 6) Write code / algorithm for deletion of a node (any position) from a singly linked list. 5