R07

Code: R7210503

B.Tech II Year I Semester (R07) Supplementary Examinations December 2015
ADVANCED DATA STRUCTURES
(Common to CSE & ECC)
(For 2008 regular admitted batch only)

Time: 3 hours   Max. Marks: 80

Answer any FIVE questions
All questions carry equal marks
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1 (a) Distinguish between object oriented programming and procedure oriented programming.
   (b) List and explain the various dynamic memory allocation and deallocation techniques present in C++.

2 (a) Write C++ program to demonstrate function overloading.
   (b) Explain how to achieve the run time polymorphism by using C++.

3 (a) Define the terms time and space complexity. Give examples for each.
   (b) What are the various operations that can be performed on stacks? Explain with example.

4 (a) Describe the importance of skip lists.
   (b) Explain any four collision resolution techniques with suitable example.

5   Write short notes on the following:
   (a) Multiway merge.
   (b) Polyphase merge.

6   What is a binary search tree (BST)? Explain with suitable example the various operations that can be performed on it.

7 (a) Write and explain the properties of red-black trees.
   (b) With the help of an example, explain the insertion of an element into a B – tree of order 4.

8 (a) Distinguish between compressed tries and suffix tries.
   (b) Explain the working of Brute force method of pattern matching.

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