Code: R7211203

R07

B.Tech II Year I Semester (R07) Supplementary Examinations, May 2013

ADVANCED DATA STRUCTURES & ALGORITHMS

(Common to IT and CSS)

Time: 3 hours Max. Marks: 80

Answer any FIVE questions

All questions carry equal marks

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1. (a) Explain the various parameters passing techniques with the help of simple program.
   (b) What is an exception? Explain the various keywords used in exception handling mechanism.

2. (a) Define function overloading. Explain it with an example.
   (b) How can we achieve the runtime polymorphism in C++? Explain it in detail?

3. (a) Discuss in detail about the various asymptotic notations.
   (b) Explain the various operations that can be performed on stacks.

4. (a) What is hashing? Explain any three hashing techniques with suitable examples.
   (b) Give brief description about the skip lists.

5. (a) Write and explain the procedure to sort the set of elements present in Min Heap.
   (b) Describe in detail about the polyphase merge.

6. (a) Discuss in detail about the Red Black trees.
   (b) With the help of a suitable example, explain the R-L and L-R rotations of an AVL tree.

7. (a) Write and explain the procedure to sort the set of elements by using quick sort technique.
   (b) Give brief description about the bi connected components.

8. (a) Write and explain the general method for dynamic programming.
   (b) What are merging and purging rules? Explain them with an example.

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