Code: R7410308

R07

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

ADVANCED DATA STRUCTURES & ALGORITHMS

(Mechanical Engineering)

Time: 3 hours   Max. Marks: 80

Answer any FIVE questions
All questions carry equal marks

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1. (a) Explain the use of this pointer with an example.
   (b) What is an exception? Explain the various key words used in exception handling mechanism.

2. (a) Define inheritance. Explain the multiple and multilevel inheritance.
   (b) Give brief description about virtual functions.

3. (a) Explain the various asymptotic notations with suitable examples.
   (b) What is an ADT? Write the ADT for a queue.

4. (a) What are the operations that can be performed on skip lists? Explain them with an example.
   (b) Explain rehashing with an example.

5. (a) Explain the sorting of elements by using heap sort technique.
   (b) How can we insert an element into the priority queue? Explain.

6. (a) Explain how to delete an element from a binary search tree.
   (b) Give brief description about the B-Tree of order 2.

7. (a) Write the algorithm for weighted union.
   (b) Explain binary search with a suitable example.

8. Write short notes on the following:
   (a) Minimum cost spanning trees.
   (b) Job sequencing with dead line.

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