

Code No: R7211203

**R7**

**II B.Tech I Semester(R07) Supplementary Examinations, November 2010**

**ADVANCED DATA STRUCTURES AND ALGORITHMS**

**(Common to Information Technology and Computer Science & Systems Engineering)**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions  
All Questions carry equal marks**

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1. (a) What are objects? How are they created? Give example.  
(b) How is a member function of a class defined? [8+8]
2. Write a program using templates to implement for finding the minimum and maximum value contained in an array. [16]
3. Explain in detail how function calls are implemented using Stacks. [16]
4. (a) Discuss about the find routine for hashing Quadratic Probing.  
(b) Write the find routine for hashing Quadratic Probing. [8+8]
5. Explain in detail about Multiway Merge with example. [16]
6. Explain in detail about Insertion operation on a Binary search tree. [16]
7. Explain in detail the applications of Divide and Conquer strategy. [16]
8. (a) How do you determine whether a give job sequence has a feasible solution or not.  
(b) Prove that the Greedy method always obtains an optimal solution to the job sequencing problem. [6+10]

