

Code No: D109115801

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

M.Tech I Semester Regular Examinations March 2010

ADVANCED PROBLEM SOLVING

**(COMMON TO COMPUTER SCIENCE & ENGINEERING, COMPUTER SCIENCE,
INFORMATION TECHNOLOGY, IMAGE PROCESSING)**

Time: 3 hours

Max.Marks:60

**Answer any five questions
All questions carry equal marks**

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- 1.a) Write a Java Program for Reading and Writing Objects.
b) Explain about O-mega and Theta Notations.
2. How can you do insert, delete operations in Doubly Linked List?
- 3.a) Implement a Queue as a Linked List.
b) Write an algorithm for Depth First Traversal.
- 4.a) Write about Union and Find Algorithms.
b) Explain about Red Black Trees.
- 5.a) Illustrate Threaded Binary Trees.
b) Write short notes on Hashing in java.util package.
- 6.a) Implement Heap Sort.
b) How can you resolve collisions in Hashing?
- 7.a) Write about BFS Graph Traversal.
b) Explain Minimum Cost Spanning Trees.
- 8.a) Explain about Compressed Tries algorithm.
b) Write about Boyer-Moore Algorithm.
