

Code No: R6-32002-MCA

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA-II Semester Supplementary Examinations, February 2010
DATA STRUCTURES (THROUGH JAVA)

Time: 3hours

Max.Marks:60

Answer any Five questions
All questions carry equal marks

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- 1.a) Differentiate between concrete class and abstract class
b) Explain the dynamic method dispatch with an example
- 2.a) Explain how exception handling mechanism can be used in a program.
b) Write a program to implement Runnable class to create a thread.
- 3.a) Write a program that removes all duplicate elements from a linear linked lists.
b) Explain the asymptotic notations that are used to find the complexity of an algorithm.
- 4.a) Write the algorithms for the insertion and deletion operations performed on the queue.
b) What is priority Queue? Explain the implementation details of priority Queue.
- 5.a) Write an algorithm to find the in order successor in threaded binary tree.
b) Differentiate between DFS and BFS.
- 6.a) What is single rotation and double rotation explain with an example.
b) Write an algorithm to insert an element into a B-tree.
- 7.a) Sort the following lists by using radix sort 121, 70, 965, 432, 12, 577, 683.
b) Explain searching procedure in separate chaining.
- 8.a) Explain the Boyer-Moore algorithm.
b) Differentiate between compressed tries and suffix tries.

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