

MAY 2013

**P/ID 17460/RCK/
P/CAK**

Time : Three hours

Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

All questions carry equal marks.

1. (a) List out the various Asymptotic Notations and Explain them.

Or

- (b) Describe the operations on arrays.

2. (a) Explain circularly linked list.

Or

- (b) Write about the applications of Queues.

3. (a) What are threaded binary trees? Explain.

Or

- (b) Write about Graph Traversals.

4. (a) What is optimal sorting time? Explain.

Or

(b) Write down the algorithm for Bubble sort.

5. (a) Explain the features of AVL trees.

Or

(b) Write on Red Black Trees.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

All questions carry equal marks.

6. Discuss on the various types of arrays in detail.

7. Explain complexity analysis.

8. Explain the operations that can be performed on Doubly Linked List.

9. Explain how to find the shortest path using trees.

10. Sort a set of 10 numbers using Quicksort and compare the computation complexity with Bubble sort.

11. Explain the process of sorting with disks.

2 **P/ID 17460/RCK/
PCA**

12. Discuss on methods for finding Hash values.
 13. Explain the following in detail.
 - (a) Splay trees
 - (b) Polynomials.
-