OCTOBER 2013 **P/ID 17409/RBK**

Time : Three hours Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1. (a) What are abstract data types? Discuss.

Or

(b) Write a short note on 'running time of a program'.

2. (a) Explain any one representation of arrays.

Or

(b) What is multistack? Discuss.

3. (a) What is compaction? Discuss.

Or

(b) What are linked stacks? Discuss.

4. (a) What are threaded binary trees? Discuss.

Or

(b) Write a short note on spanning trees.

5. (a) Give a brief note on sequential file organisation.

Or

(b) Write a brief note on multilists.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

6. Discuss briefly on time and space complexity of algorithms with suitable example.

7. How do you evaluate expressions using stacks? Explain.

8. Write a brief note on queues.

9. Explain the binary tree traversals with a suitable example.

10. Give a brief note on doubly linked lists.

11. Explain with suitable example, graph traversals.

12. What are B-trees? Discuss.

13. Give a brief overview on hashing techniques for direct files.

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