

OCTOBER 2012

P/ID 17409/RBK

---

Time : Three hours

Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1. (a) What are composite and primitive data types? Explain.

Or

- (b) Write a note on abstract data types.

2. (a) What are sparse matrices? Discuss.

Or

- (b) Explain the representation of arrays.

3. (a) What are linked stacks? Discuss.

Or

- (b) Write a short note on compaction.

4. (a) What is binary tree representation of trees? Discuss.

Or

- (b) Write a short note on spanning trees.

5. (a) Write a note on variable length records and text files.

Or

- (b) What are inserted lists? Discuss.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

6. Write a note on time and space complexity with suitable example.
7. Give a brief note on stacks.
8. Write a note on queues.
9. Briefly discuss on singly linked list.
10. Explain the various binary tree traversals.
11. Explain the various graph traversals.
12. What are B-trees? Discuss.
13. Discuss the various hashing techniques for direct files.