

MAY 2016

P/ID 17516/PCASS

Time : Three hours

Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1. Write notes on recursive algorithm.
2. Write about the control abstraction for divide and conquer.
3. Write notes on Strassen's matrix multiplication.
4. Write down the greedy algorithm for sequencing with time jobs with dead lines and profits.
5. Discuss on connected components and spanning trees.
6. Write an algorithm for general iterative back tracking method.
7. Discuss on Branch-and-Bound method.
8. Write down the deterministic algorithm for the sum of subsets decision problem.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9. Give a detailed note on performance analysis.
10. Write an algorithm to find the maximum and minimum values from a set of 'n' elements.
11. Explain quick sort with example.
12. Explain optimal storage on tapes.
13. Explain single source shortest path.
14. Discuss on :
 - (a) Breadth first search
 - (b) Depth first search.
15. Give a detailed note on least cost search.
16. Explain branch and bound method traveling sales person problem.
17. Explain the oracles and adversary arguments.
18. Explain non deterministic algorithms.