

MAY 2014

P/ID 17516/PCASS

Time : Three hours

Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1. Write notes on Pseudocode conventions.
2. Write the control abstraction for divide and conquer.
3. Discuss on Strassen's matrix multiplication.
4. Write greedy algorithm for sequencing with time jobs with dead lines and profits.
5. Discuss on all pairs shortest path problem.
6. Write notes on Hamiltonian cycles.
7. Discuss on Branch-And-Bound method.
8. Draw the comparison tree for sorting three items.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9. Give a detailed note on performance analysis.
10. With example explain merge sort.
11. Explain Greedy method for Knapsack problem, solving.

12. Discuss on optimal storage on tapes.
 13. Describe the multistage graph problem. Also develop an algorithm for the same using forward approach.
 14. Discuss on :
 - (a) Breadth first search
 - (b) Depth first search.
 15. Describe the 8-queens problem, and solution.
 16. State and explain branch and bound method, used for solving traveling salesperson problem.
 17. Explain the oracles and adversary arguments.
 18. Explain Nondeterministic algorithms.
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