D.K.M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1
SEMESTER EXAMINATIONS
NOVEMBER - 2016   CCS5C
DESIGN AND ANALYSIS OF ALGORITHM

Time : 3 Hours   Max. Marks : 75

SECTION – A (10 x 2 = 20)

Answer ALL the questions.

1. What is an Algorithm?
2. How to analyse an Algorithm?
3. Write Control Abstraction for Subset Paradigm.
4. Define Divide and Conquer Strategy.
5. Define general method for Dynamic Programming.
6. List out the Operations available in String Editing.
7. Define Explicit Constraints.
8. Define Static - trees.
9. Explain LC - Search technique.
10. Define E - node.

SECTION – B (5 x 5 = 25)

Answer any FIVE of the following questions.

11. Discuss about Asymptotic Notations.
12. Explain traveling Salesman Problem in Dynamic Programming.
13. Explain Greedy Strategies for the Knapsack Problem.
14. Write a Recursive Backtracking Algorithm for sum of Subsets Problem.
15. How to tackle the 8 Queen's problem in backtracking technique? Explain.
16. Discuss about FIFO Branch and Bound Solution.
17. Write an algorithm for Maximum and Minimum Value in Divide and Conquer technique.
18. Explain String Editing with example.

SECTION – C (3 x 10 = 30)

Answer ALL the questions.

19. (a) Explain Space Complexity and Time Complexity.

    (Or)

    (b) Discuss about Job Sequencing with Deadline.

20. (a) Explain Multi Stage Graph in Dynamic Programming.

    (Or)

    (b) Discuss about Bounding in Branch and Bound method.

21. (a) Explain Quick Sort with example.

    (Or)

    (b) Explain Graph Colouring method with example.

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