

Code :R7310506

R7

III B.Tech I Semester(R07) Supplementary Examinations, May 2011
DESIGN & ANALYSIS OF ALGORITHMS
(Computer Science & Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

1. (a) Present an algorithm for finding Fibonacci sequence of a given number.
(b) Discuss about space complexity in detail.
2. (a) Explain the different set operations with suitable examples.
(b) Give brief description about the array representation of sets.
3. (a) Explain the sorting of elements by using merge sort technique.
(b) Present a Iterative algorithm for Binary Search.
4. With the help of a suitable example, explain the Greedy Knapsack.
5. (a) Device an algorithm m to find the optimal order of multiplying n matrices using dynamic programming technique.
(b) Explain the time efficiency of an algorithm OBST is cubic.
6. (a) Compare and contrast between Brute force approach Vs Back tracking.
(b) Suggest a solution for 8 queens problem.
7. Write and explain an algorithm for a LIFO branch and bound algorithm to find the minimum cost answer node.
8. (a) Explain the non-deterministic search and sort algorithms.
(b) Explain the cook's theorem.
