2006 ANNA UNIVERSITY
B.E/B.TECH DEGREE EXAMINATIONS
FOURTH SEMESTER ELECTRONCS AND COMMUNICATION ENGINEERING
PROGRAMMING AND DATA STRUCTURES

TIME: 3 HOUR
MARK: 100

Answer All Question

PART A-(10×2=20)

1. What is top-down design strategy?

2. Differentiate functions and procedures.

3. Give any 4 algorithm techniques.

4. What is Dynamic Programming?

5. Compare and contrast Repeat....Until and While loop.

6. Differentiate between arrays and lists.

7. Give applications of stacks and give an example for one of them.

8. Give various implementation of tree.

9. Give steps in Treesort and give the running time.

10. What is hash search?

PART B-(5×16 = 80)

11. (a) What are the different types of parameter passing? Explain with suitable examples.

12. (a) Explain in detail Backtracking with 2 examples.
 Or
(b) Discuss how knapsack problem is solved using Backtracking and Greedy algorithm.

13. (a) Discuss in detail Pointers, Bit operations and File processing in C with examples.
 Or
(b) Explain user defined data types, control statements and records in Pascal with examples.

14. (a) Give linked list implementation of stack operation.
 Or
(b) Give Array representation and implementation of Circular.

15. (a) (i) Give algorithm to find minimum spanning tree.

(ii) Discuss insertion sort and its execution time.
 Or
(b) Discuss in detail storage management.