

B.C.A. DEGREE EXAMINATION – JUNE, 2006.

First Year

(For Candidates admitted in AY 2004-05, CY – 2005 and AY 2005-06

'C' PROGRAMMING AND DATA STRUCTURE

Time : 3 hours

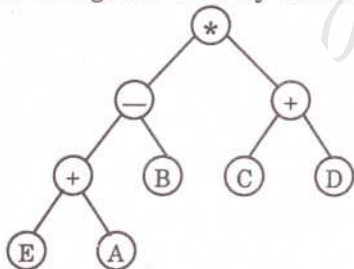
Maximum marks : 60
(AY 2004-05, CY 2005)

Maximum marks : 75
(AY 2005-06)

PART A — (4 × 5 = 20 marks)

Answer any FOUR questions.

1. Write a simple program to explain getchar () and putchar () functions.
2. List the Boolean operators available in C. Explain how they are used?
3. Traverse the given tree by Inorder, preorder and post order.



4. What is the difference between datatype and data structure? Explain how two dimensional arrays are represented.
5. Discuss briefly Big-oh Notation.
6. Compare and contrast DFS and BFS.

PART B — (4 × 10 = 40 marks)

Answer any FOUR questions.

7. (a) Explain if-else statement by giving an example.
(b) What is a ternary operator? Explain its use.
8. Discuss briefly fragmentation and compaction.
9. What is a stack? How will you implement it using pointer?
10. What is a spanning tree? Explain how to build a minimal spanning tree.
11. (a) Explain how quick sort is applied to sort a given list.
(b) How the performance quick sort can be improved?
12. What is a Binary Search Tree? Explain how insertion is done in a Binary Search Tree.