

Register Number :

Name of the Candidate :

1 3 4 4

B.Sc. DEGREE EXAMINATION, 2010

(MATHEMATICS WITH COMPUTER APPLICATIONS)

(THIRD YEAR)

(PART - IV)

(PAPER - III)

**730. DATA STRUCTURES AND
ALGORITHMS**

May]

[Time : 2 Hours

Maximum : 50 Marks

SECTION - A (4 × 5 = 20)

Answer any FOUR questions.

All questions carry equal marks.

1. Explain ordered list with an example.
2. Explain any one application of stack.

Turn Over

3. Write any one application of tree.
4. Write a note on sequential file.
5. What are the three ways of traversing a binary tree ?
6. Write a note on tree searching.

SECTION - B (3 × 10 = 30)

Answer any THREE questions.

All questions carry equal marks.

7. What is an array ? Explain its types with examples.
8. Explain the algorithm to insert and delete an element in linked list.
9. Arrange the numbers in ascending order using Quick Sort :
44, 33, 11, 55, 77, 90, 40, 60, 99, 22, 88, 66.
10. Explain the algorithm to insert and delete an element in the linked list.
11. Write a note on inverted files.