2011

Full Marks : 75

Time : 3 hours

Candidate are required to give their answerse

In their own words as far as practicable

The figues in the margin indicate full marks.

Question are of equal value

Answer any five questions

1. What do you mean by algorithms & flow charts ? Discuss the complexity of algorithm ?

2. Trams form the following in Fixexpression into post fix notation .

    (a) $5 * X^3 + 3 * (X - 11)$ (b) $2 (a + b) - 7 (c + d)$

3. What do you mean by linked list ? Discuss its advantage over array ? Write an algorithm to insert an item in the singly linked list.

4. What are the application of stack ? Discuss infix, postfix and prefix notation ? With example ?

5. Discuss doubly linked list & circular linked list with necessary algorithm.

6. Explain traversal of binary tree inorder, pre order & post order ? Also discuss application of binary tree ?

7. (a) Explain the process of searching ? What is the advantage of binary search over selection search ?

    (b) Write the algorithm for bubble sort.

8. What is Graph ? Discuss the terminology of graph ? Also explain Depth first search ?

9. **What do you mean by Auto CAD ? Exaplain the features of Auto CAD in detail ?**

10. **Write short notes on any three :**

i) Circular queue   (ii) Radix sort   (iii) Hash Table

iv) Recursion   (V) High Balanced Tree.