XEV (H-2)- BCA (4)

2013

Time : 3 Hours

Full Marks-75

Candidates are required to give their answers

In their own words as far as practicable

The figures in the margin indicate full marks

Question are of equal value

Answer any five questions

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

2. **What do you mean by Auto CAD? Explain the features of Auto CAD in detail?**

3. **What is linked list? How is it different from array? How can insertion and deletion operation be performed in the linked list?**

4. **Write the algorithm of quick sort and calculate the complexity of quick sort in worst case.**

5. **Differentiate among graph, tree binary tree and complete binary tree.**

6. **Discuss doubly linked list & Circular linked list with necessary algorithm.**

7. **Write the algorithm of Kruskal and Prim's for minimum spanning tree.**

8. **Define binary search tree. How can it be stored in computer memory as an array? Give suitable example.**

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

   (b) **Write the algorithm for bubble sort.**

10. Write short notes on any three of the Following :

(a) Radix Sort
(b) Hash table and collision resolution technique
(c) Heap sort
(d) Recursion
