DATA STRUCTURE-II

Time : 3 Hours *Maximum Marks : 90*

(COMPULSORY QUESTIONS)

1. a) What are the applications of binary search tree?
   b) Find prefix polish notation for the expression.
   $E=(2a+5b)^3(x-7y)^4$
   c) What are the various representations of graphs in computer memory?
   d) Differentiate between serial & sequential file organization.
   e) Describe Kruskal algorithm for minimum spanning tree
   f) How deletion is performed in B tree?

UNIT-I

2. Explain the procedure of insertion & deletion in binary search tree using suitable example.
3. What is m-way search tree? Write the procedure for operations used in m-way search tree.
4. Explain in detail the Depth First Search Technique for traversing the graph with suitable example.
5. What is Topological sorting? Write the algorithm and explain the process using suitable example.

UNIT-III

6. a) Compare various sorting & searching techniques on the basis of their complexity.

b) Write algorithm for Radix sort.

7. What is Quick sort? Write the algorithm for Quick sorting & explain it with suitable example.

UNIT-IV

8. Write notes on :
   a) Collision Resolution.
   b) Sequential file organization.
9. Describe Indexed & Random file organization and their access mechanism.