OR

6. a) Enumerate the operations on AVL trees. 6

   b) List out the steps in deleting an element from a B-tree. 6

UNIT-IV

7. a) Compare the efficiency of MERGE, QUICK, SELECTION and HEAP sort algorithms. 6

   b) Discuss the complexity analysis of various sorting algorithms. 6

OR

8. a) What is sequential searching? Explain with a suitable example. 6

   b) Briefly explain binary tree hashing . 6

UNIT-V

9. Write different representations of graphs with suitable examples. 12

OR

10. Briefly explain linked representation of graphs. 12

[EURCS 304 / EURIT 304]

B.Tech. DEGREE EXAMINATION

CSE/IT
III SEMESTER

DATA STRUCTURES

(Effective from the admitted batch 2007–08 onwards)

Time: 3 Hours **Max.Marks: 60**

Instructions: Each Unit carries 12 marks.
Answer all units choosing one question from each unit.
All parts of the unit must be answered in one place only.
Figures in the right hand margin indicate marks allotted.

UNIT-I

1. a) Briefly explain Simspace operations. 6

   b) Write a program for "INSERT" using simulated pointers. 6

OR

2. a) What is sparse matrix? Explain with suitable example. 6

   b) Discuss briefly about double linked list. 6

UNIT-II

3. a) What is an abstract data type stack. 6

   b) Briefly discuss about the application of Towers of Hanoi. 6

OR

4. a) Briefly explain the formula-based representation of queue. 6

   b) Discuss the application of wire routing. 6

UNIT-III

5. a) Discuss briefly about the representation of binary trees. 6

   b) Explain the binary tree traversal. 6

OR

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