24032

B. Tech. 3rd Semester (IT) F- Scheme
Examination, December – 2016
DATA STRUCTURE USING 'C'
Paper–CSE-201-F

Time allowed : 3 hours]   *[Maximum marks : 100*

Note : *The candidate have to attempt **first compulsory** question and **one** question from each of the four sections.*

1. Explain the following :

   (i) Complexity of Algorithims

   (ii) Dynamic Allocation

   (iii) Tree

   (iv) File Concept.   20

Section–I

2. Define Data Structure. Explain the choice of right data structure. Also explain in detail about the types of data structure.   20

3. Describe the following :

   (i) Shell Sort

   (ii) Bubble Sort

   (iii) Quick Sort   20

Section–II

4. Explain the following :

   (i) Array of Pointer

   (ii) Pointer Variables

   (iii) Dynamic Allocation. 20

5. What is Linked List. Explain in detail about doubly linked list and operations on linked lists. 20

Section–III

6. What is Binary Tree. Explain its types and operations on Binary Trees. Also explain about threaded binary tree. 20

7. Give a complete discription about graphs. 20

Section–IV

8. What is File ? Explain in detail about file handling and file organization. 20

9. Describe the following :

   (i) AVL Tree

   (ii) Skip List. 20