Exam. Code : 107204
Subject Code : 2069

BCA Semester—IV

DATA STRUCTURE & FILE PROCESSING

Paper–I

Time Allowed—3 Hours] [Maximum Marks—75

Note : Attempt any **five** questions. All questions carry equal marks.

1. Discuss the features of following data structures with examples :
   (a) Queue 7.5
   (b) Trees. 7.5
2. (a) Explain the insertion and deletion operations on a stack. 7.5
   (b) Compare the features of linked list and binary trees. 7.5
3. Discuss the Breadth first search algorithm for graph using an example. 15
4. (a) Compare quick sort algorithm with bubble sort algorithm. 10
   (b) Discuss the linear search technique in detail. 5
5. Discuss the following file organization :
   (a) Indexed 7.5
   (b) Sequential. 7.5

6. (a) Illustrate binary search for searching '6' in the following list :

2 4 6 8 10 7.5

(b) Compare the concept of master and transaction files. 7.5

7. What is space time complexity trade off ? Explain with examples. 15

8. Write notes on the following :

(a) Compaction 7.5

(b) Master and transaction files. 7.5