# (DEC 216)

### **B. Tech. DEGREE EXAMINATION, MAY - 2015**

### (Examination at the end of Second Year)

#### **ELECTRONICS & COMMUNICATIONS**

#### Paper - VI : Data Structures Using C

### Time : 3 Hours

#### **Maximum Marks : 75**

| Answer question No. 1 compulsory | Answer question No. 1 compulsory   | (15 x 1 = 15) |
|----------------------------------|------------------------------------|---------------|
|                                  | Answer ONE question from each unit | (4 x 15 = 60) |

- *1)* Write short notes on :
  - a) Bubble sort
  - b) Queues
  - c) Linear Search
  - d) B-Tree
  - e) Stack applications

#### <u>Unit – I</u>

2) Write a suitable program to explain the list operations and their implementation using arrays.

#### OR

- 3) Explain :
  - a) Single linked list
  - b) Double linked list

#### <u>Unit – II</u>

4) Write a program to show the implementation of a stack using linked list.

#### OR

5) Explain the applications of a Queue.

### <u>Unit – III</u>

*6)* Discuss Quick Sort with example.

#### OR

7) Differentiate selection sort and insertion sort.

#### <u>Unit – IV</u>

8) Explain the hashing methods and applications.

### OR

9) Explain in detail about AVL-Trees.

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