AI-21153 Seat No. _____

B. C. A. (Sem. II) (Non CBCS) Examination

March / April – 2016

CS-07 : Advance C & Data Structure

Time : **3** Hours] [Total Marks : **100**

1 Explain in detail: (Any four) **20**

(1) What is sorting? List out type of sorting.

(2) What is queue? List type of queues. Explain advantages of queue over stack and applications of it.

(3) Explain call by reference function with recursion.

(4) Explain Selection sort with example.

(5) Draw the binary tree for the following data and display its value in preorder, postorder and inorder :
20, 5, 15, 17, 45, 10

2 Explain in detail: (Any four) **20**

(1) Write UDF to implement insert( ) in a circular queue.

(2) Describe advantages of pointer.

(3) What is link list? Explain advantages of link list over array.

(4) Define pointer. Explain pointer to structure with example.

(5) Write a short note on static and dynamic array with example.

3 Explain in detail: (Any four) **20**

(1) What is searching? Explain its type in brief.

(2) What is a binary tree? Explain tree-traversals.

(3) Differentiate array and link list.

(4) Explain Insertion sort with example.

(5) Explain Binary search with example.

4 Explain in detail: (Any four) **20**

(1) Compare insertion sort and selection sort.

(2) Explain the difference between static and dynamic array.

(3) Explain Bubble sort with example.

(4) Explain Singly link list with example.

(5) What is stack? How it differ from Queue? Explain with suitable example.

5 Explain in detail: (Any two) **20**

(1) Write a program to create and display doubly linked list.

(2) Write a program to delete a node based on information in singly link list.

(3) Write a program to read a file named "city.txt" file and count the no. of words stored and display it.
