Printing Page(s) : 1 **Paper Code :DCS-112**

Roll No.

MCA-2, M.Sc. (CA)-2, PGDCA-2

1st Year Examination, Academic Batch 2018

Data Structure Through C

Time : 3 Hours] *[Max. Marks : 100*

***Note**. Attempt any **five** questions. Each questions carry equal marks.*

Q1- a)Write short notes on –
i) B+-Tree ii) threaded binary tree
b) Write algorithm for preorder traversal of tree.

Q2-Write recursive function for binary search. What are the complexity of binary search
and sequential search algorithms?

Q3- Discuss the algorithm for quick sort. Analyze its running time. Using your algorithm
sort the given list of numbers : 24,13,58,169,47,3,12,98,65,6,40,18

Q4- Define B tree. How it is different from BST? Also discuss the insertion and deletion
in B tree .

Q.5 (a) Define Prim's Algorithm with an example.
(b) What do you mean by complexity of search algorithm?

Q.6 Write short note on-
(i) Indexing (ii) Sequential files (iii)Hashing

Q.7 What do you mean by BST? Consider the following elements are inserted into an empty binary tree- F,G,A,B,J,L,C,O.Draw the tree.

Q.8 Discuss the algorithm for heap sort. Give an example in support of your answer