

MCA/ PGDCA 2<sup>ND</sup> SEMESTER Examination 2013

SUBJECT : DATA STRUCTURE THROUGH C-LANGUAGE

PAPER : VI  
(PRACTICAL)

Time: 2 Hrs

Full Marks: 40

1. Write any two program in C-language from the following and show them to the external examiner:  $15 \times 2 = 30$
- (a) Write a program that accepts an integer array of size N, and exchanges the elements of the first half with the elements of the second half of the array.  
For example, if the array is  
{8, 10, 1, 3, 17, 90, 13, 60} then the output should be:  
{17, 90, 13, 60, 8, 10, 1, 3}
- (b) Consider a linked list containing integer values and write a C-Program to find the average MEAN of the values.
- (c) Write a C- program to determine whether a given string is a palindrome or not with the help of a stack.
- (d) Write a C- Program using insertion sort technique to sort the following elements:  
{60,50,25,10,35,25,75,30}
- (e) Write a C-program for traversing of a binary tree.
- (f) Write a program for the following
- (i) Create a graph
  - (ii) insert information into the graph
  - (iii) Print the graph
2. Viva-Voce. 10

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(1)