

II B.Tech I Semester Supplementary Examinations, May 2005
DATA STRUCTURES THROUGH C
(Common to Mechanical Engineering, Mechatronics, Metallurgy & Material
Technology, Production Engineering and Aeronautical Engineering)
Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

1. Write a C program to print the Pascal triangle
2. Write an algorithm to create a doubly linked list of integer elements and do the following operations
 - (a) Add a node at given locations
 - (b) Delete a node from given location
3.
 - (a) Write a C Program to convert a postfix expression into infix expression.
 - (b) Transform the following postfix expression to infix A B C + D E F - + \$
4. Write algorithms for various operations performed on queues and explain with a suitable example.
5. Write a C program to create a tree and traversing the same in preorder and post order
6.
 - (a) Write C program to create an empty graph, to enter graph information and to have output from graph.
 - (b) Write a C program to breadth first search of a graph.
7.
 - (a) Search using linear search, number 26 from the list of numbers and give the steps.
10,7,17,26,32,92
 - (b) Write a C program to implement the same.
8. Write a C program to perform selection sort and arrange the same in the stack.
