0) Write a program to display use of string functions without using header file “<strings.h>”.

1)Out of 3 any 2 programs will be given for next lab class

1. Solving 8 Queen problem (Output: any one solution needs to be displayed)

2. Implementation of Priority queue ( both Ascending and Descending PQ)

3. Implementation of Stack and Queue using the linked list.

2)Out of the following Two programs, one will be given at the lab

class. Along with this, Output needs to be shown for previous lab

class program.

1. Write a C/C++ code for validating a given expression using stack

2. Write a C/C++ code to convert the infix expression to postfix

expression and evaluate Postfix expression using Stack.

3) 1.Polynomial addition and multiplication using circular doubly linked list

2.Addition of two extremely large numbers using doubly linked list

4) The following two programs need to be completed for the next lab class

1. Write a program to implement the following operations on doubly linked list.

(i)reversing the entire list

(ii)counting the number of nodes

(iii)splitting the list into 2 lists

2. Write a program to implement the following operations on single linked list

(i) InsertSort()

It rearranges the nodes in the given list, so they are sorted in

increasing order.

(ii) AlternatingSplit()

It takes one list and divides up its nodes to make two smaller lists.

The sublists should be made from alternating elements in the original

list. So if the original list is {a, b, a, b, a}, then one sublist

should be {a, a, a} and the other should be {b, b}.

(iii) Append() function

It takes two lists, 'a' and 'b', appends 'b' onto the end of 'a',

and then sets 'b' to NULL (since it is now trailing off the end of 'a').

5)Out of 3, any 2 programs will be given for the next lab class

(1) Write a program to implement Binary Search Tree With the following

operations:

(i)Insertion (ii) Deletion (all 3 cases) (iii) Display

(2) Write a program to convert the given Infix expression to Binary Tree

(3) Write a program to construct the Strictly binary tree from the

given preorder and post order traversals.

6)The following 2 programs need to be completed in the next lab class

1. Implementation of preorder (OR) postorder using a threaded binary tree

2. Implementation of AVL Tree ( Insertion, Deletion, and Display)

7)The following two programs have to be completed for the next lab class

1. Implementation of Huffman algorithm

2. Implementation of Red Black Tree Insertion & Display

8)The following 2 programs will be given for the next lab class

1. Write a program to convert the given forest to a binary tree

2. Implementation of Transitive Closure for a given Graph

9) Lab programs for tomorrow lab

1) BFS and DFS traversals

2) Topological sorting

10) The following 2 programs will be given for the next lab class

1. Dijkstra's algorithm

2. Warshall algorithm ( for both weighted and unweighted graphs)

11) Write codes for the following :-

1. Quick sort
2. Heap sort
3. Merge sort