# Data Structure Assignments
# B.Sc. 2nd Semester Computer Science (Hons.)
# Group-B

1. Already Given.

2. Already Given.

3. Write a C program to implement stack and circular queue using a 1D array of length n.

4. Write a C program to implement the followings:
   i) Convert an infix expression to its equivalent postfix expression.
   ii) Evaluate a postfix expression.
5. Write a C program to implement Linked List. Include functions for insertion, deletion and search of a number, reverse the list.

6. Write a C program to find the union and intersection of two sorted linked list. Here, the sorted linked list means linked lists where all the elements are in ascending order.

7. Write a C program to perform the addition between two polynomials.

8. Write a program to create a Binary Search Tree and include following operations in tree:
   (a) Insertion (Iterative Implementation).
   (b) Deletion.
   (c) Search a node in BST.
   (d) Display its preorder and inorder traversals Iteratively.
   (e) Display its level-by-level traversals.
   (f) Count the non-leaf nodes and leaf nodes.
   (g) Display height of tree.
   (h) Create a mirror image of tree.

9. Write a program to sort a list of elements. Give user the option to perform sorting using Insertion sort, Selection sort and Quick sort.