**Data Structure Questions for Mid-term practical**

**Note:**

1. Do not use any **Global Variable** in any Program.
2. Use **Separate Function** for each Task in every Program.
3. Use **Menu Driven Format** if there are multiple Task in a Program.

**Q1.** Write a the C program to create an array by inserting N elements in it then find second non repeating element from the array.

**Q2.** Write a the C program to create an array by inserting N elements in it then find third repeating element from the array.

**Q3.** Write a C program Create a Dynamic array and then Reverse the array using recursion and then finally print the array.

**Q4.** Write a C Program implement STACK using array in menu driven form.

**Q5.** Write a C Program to Convert Infix to Postfix Expression using Stack.

**Q6.** Write a C Program to create singly linked list by adding nodes in the right hand side and delete alternate node from the list and then print the final list.

**Q7.** Write a C Program implement STACK using Link List in menu driven form.

**Q8.** Write a C Program implement QUEUE using Link List in menu driven form.

**Q9.** Write a C Program implement priority QUEUE using array in menu driven form.

**Q10.** Write a C Program implement QUEUE using array in menu driven form.

**Q11.** Write a C program to Evaluate Postfix Expression using Stack

**Q 12.** Write a C program to create TWO singly linked list L1 and L2 and sort both the list and finally merge both the list such that L2 comes after L1.[ use double pointer]

**Q 13.** Write C program to create a doubly link list by adding the node right hand side and then check list is in palindrome form or not.

**Q14**. Write a C program to create a circular link list by adding the nodes in right hand side and then print the list.