**GLA University, Mathura**

**Data Structure and Algorithm Lab**

**BCSC 0805**

**(Lab Record)**

**Submitted by:**

**Name**

**University Roll Number**

**Course**

**Branch**

**Year**

**Semester**

**Section**

**Class roll Number**

**Experiment 1**

Write a program to print all the duplicate elements present in the given array.

for example 1,8,1,9,2,3,8,6,9,1

output 1,8,9

**Experiment 2**

Consider a Singly linked list, where each node can store an integer value. You task is to form a number, whose digits are stored in given singly linked list. The start node contain the first digit and last node contain the last digit

Method

public int getNumber(SinglyLinkedList list){

}

For example:

1🡪 8 🡪 6 🡪 2 🡪 null

Then you have to give output

1862

**Experiment 3**

Write a program to Implement Singly linked list.

**Experiment 4**

Write a program to implement circular linked list.

**Experiment 5**

Write a program to implement Stack Using Array.

**Experiment 6**

Write a program to implement Stack using linked list.

**Experiment 7**

Write a program to implement Queue using Array.

**Experiment 8**

Write program to implement Queue using linked list

**Experiment 9**

Write a program to implement Binary search tree (BST).

**Experiment 10**

Write a program to search an element with in linked list using linear search.

**Experiment 11**

Write a program to search an element with in array using binary search.

**Experiment 12**

Write a program to Sort the given array using Selection sort.

**Experiment 13**

Write a program to Sort the given array using Insertion sort.

**Experiment 14**

Write a program to Sort the given array using Quick sort.

**Experiment 15**

Write a program to Sort the given array using Merge sort.