

**Branch : MCA**

**Semester : Spring Semester 2022-23**

**Course Code : CA3205**

**Laboratory Name : Numerical Computing Lab (using C++)**

**Assignment No. : ASSIGNMENT – 0**

**Assignment Title : C Revision**

- 1) Write a program in C to check whether the ith bit of an interger is set.
- 2) Write a program in C to extract the numric equivalent of bits from 5<sup>th</sup> to 10<sup>th</sup> position of a given short integer.
- 3) Write a program to input a number 'n' and print the following pattern.

n = 5

```
      A
     A B A
    A B C B A
   A B C D C B A
  A B C D E D C B A
```

- 4) Write a program in C to implement linear linked list using an array. Write a menu driven program for create, insert, delete and traverse operation.
- 5) Write a C program to input an interger array and define a function to count the number of intergers having duplicate value.
- 6) Write a function (using pointer parameters) that compares two integer arrays to see whether they are identical. The function return 1 if they are identical, 0 otherwise.
- 7) Create a structure student having the following data members: name, dob (day, month, year), add( plot no, area code, city), regdno & marks in 5 subjects where dob is a variable of the structure date and add is a variable of address structure type. Take the information about 10 students. Display the student information according to their regdNo in ascending order respectively.
- 8) Create a structure named book having following data members namely Book Title, Author, Price, and Publisher respectively. Take the input for 10 books and arrange all the book information according to the title of the book.