#### **PROBLEMS**

TOPIC: File Handling

#### Q No. 1

Write a C++ function which reads the data from 2 files (record1.txt, and record2.txt) Load the data into 2D char arrays as arryR1[6][6] and arryR2[6][6]. Compare each element index by index and find the unique elements in the arrays. Open a file Output.txt in append mode and write all the unique elements in that array.

#### Q No. 2

Write a program in C++ which opens a file called Numbers.txt (consisting of numbers, a sample is provided, and you can add more numbers to it if you like) and reads the list of integers present in it. If the number being read is an odd number then it writes it in a file called odd.txt and if the number is even it writes it in file called even.txt. At the end your program should display the number of odd numbers written in the odd.txt file and the number of even numbers written in the even.txt file.

### *Q* No. 3

The program begins with the menu:

- 1. Encrypt data
- 2. Decrypt data

If the user presses 1, read the entire data from file "input.txt" into a char array. The file cannot contain more than 100 characters (including digits, spaces, letters etc.). Encrypt the file by replacing each character with a character that has the next ascii letter. For example a with b, M with N etc. Print the updated array on screen. Also store the array in file "encrypt.txt".

### Sample input.txt

Najam sheraz, the singer, is an intelligent boy.

# Output in encrypt.txt

Obkbn!tifsb{-!uif!tjohfs-!jt!bo!joufmmjhfou!cpz/

If the user presses 2, read the entire data from file "encrypt.txt" into a char array. The file cannot contain more than 100 characters (including digits, spaces, letters etc.). Decrypt the file by replacing each character with a character that has the preceding ascii letter. For example b with a, N with M etc. Print the updated array on screen. Also store the array in file "decrypt.txt".

## Sample data:

Input in encrypt.txt

Obkbn!tifsb{-!uif!tjohfs-!jt!bo!joufmmjhfou!cpz/

## Output in decrypt.txt

Najam sheraz, the singer, is an intelligent boy.

## Q No. 4

Write a program in C++ which opens a file Data.txt (consisting of 4 x 4 Matrix of integers, Read and load the data into a 2D array. Then it takes transpose of 4 x 4 array and stores back into the original file. The program should print both original and transposed matrix.