Assignment No 2

Important Note:
- Each code file will contain only one question and the file name should be "Problem1.c", "Problem2.c" and so on.
- Place all of your code files in one folder which should be named as your student id i.e., 1373101.
- Zip the folder and upload on google classroom before the deadline i.e., one zipped file per student.
- Last Date for Submission: **December 18, 2022 (11:59 PM)**
- Assignment will be marked as 0 if:
  - Submitted late.
  - The submitted assignment does not open or file is corrupted or cannot be compiled.
  - Assignments submitted via any medium except for Google Classroom.
  - Copied amongst students or from another source.

Problem-1 **(2 Points)**

Write a program in C to store 10 elements in an array and print it.

Sample Input:
Input 10 elements in the array:
element - 0: 1
element - 1: 1
element - 2: 2
....
Sample Output:
Elements in array are: 1 1 2 3 4 5 6 7 8 9

Problem-2 **(2 Points)**

Write a program in C to find the maximum and minimum element in an array.

Sample Input:
Input the number of elements to be stored in the array :3
Input 3 elements in the array:
element - 0: 45
element - 1: 25
element - 2: 21

Sample Output:
Maximum element is: 45
Minimum element is: 21

Problem-3   **(2 Points)**

Write a program in C to copy the elements of one array into another array.

Sample Input:

Input the number of elements to be stored in the array :3
Input 3 elements in the array:
element - 0: 15
element - 1: 10
element - 2: 12

Sample Output:

The elements stored in the first array are:
15 10 12
The elements copied into the second array are:
15 10 12

Problem-4   **(2 Points)**

Write a program in C to merge two arrays of same size sorted in descending order.

Sample Input:

Input the number of elements to be stored in the first array :3
Input 3 elements in the array:
element - 0: 1
element - 1: 2
element - 2: 3

Input the number of elements to be stored in the second array :3
Input 3 elements in the array :
element - 0: 1
element - 1: 2
element - 2: 3

Expected Output:

The merged array in descending order is:
3 3 2 2 1 1

Problem-5   **(2 Points)**

Write a program in C to count the frequency of each element of an array.

Sample Input:

Input the number of elements to be stored in the array :3
Input 3 elements in the array:
element - 0: 25
element - 1: 12
element - 2: 43

Sample Output:
The frequency of all elements of an array:
25 occurs 1 times
12 occurs 1 times
43 occurs 1 times

Problem-6   **(2 Points)**
Write a C program which converts a decimal (base 10) number into binary (base 2). Store this number in any array which will be printed to screen (console).

Sample Input: **Sample Output:**
Number to convert: 2   10
Number to convert: 5   101