Bahria University, Islamabad Campus

Department of Computer Science

Take Home - FINAL Term Assessment

Class/Section: { 1A/1B- BSIT}

(Fall 2020 Semester)

Course: Computer Programming LAB

Course Code: CSL-113

Faculty's Name: Maryam Aslam

Date Assigned: **26-01-21**

Submission Date: **26-01-2**

Max Marks: 40

INSTRUCTIONS:

I. **All Questions are compulsory.**
II. **This assessment consist of 4 questions.**
III. **Each Question carry equal marks (10).**
IV. **This is an open book assessment.**
V. **Copy paste material will lead to zero marks for both parties, (the one who is haring file, the other who is coping).**
VI. **Submit .doc file on LMS.**
VII. **No medium other them LMS is required to submit your final exam. Acceptance of final exam assessment is not possible through emails.**
VIII. **Paper time would be from 10:00 AM to 2:00 PM.**

Student Name: _____ **Enrollment No.** _____

Question # 1

Write a C++ program to accept 10 integer values from keyboard.

1. **The ten values will be stored in an array using a pointer. Then print the elements of the array on the screen.**
2. **Modify the solution of part 1 in order to print the elements of the array in reverse order using a pointer.**

CODE AND OUTPUT (FULL WINDOW SCREENSHOOT)

Question # 2

Write a program which includes a function named as “freq_num”, Create an array which gets input from user in an array of 5 integers, returns the integer that appears most frequently in the array.
Note: If two numbers are frequently appeared then it will return both the numbers.

For example:
for the array [1 2 8 9 1 1 3 1 2 1] your function should return 1.
for the array [1 1 8 9 9 9 3 1 9 1] your function should return 1 and 9.

CODE AND OUTPUT (FULL WINDOW SCREENSHOOT)

Question # 3
Write a C++ program which creates the following menu.
a. Accept elements of an array from user.
b. Display all the elements of an array.
c. Sort the array using insertion sort method.
d. Sort the array using selection sort method.
e. Sort the array using bubble sort method.
Write C++ functions for all options. The functions should have two parameters: name of the array and number of elements in the array.

For example:
If user press “a” then array elements should be accepted from user.
If user press “b” then all the array elements should be displayed.

CODE AND OUTPUT (FULL WINDOW SCREENSHOOT)

Question # 4
Write a program that takes an input of a 2d array, Once all the input has been taken, you have to print the array members. Your output should look like this,

```
Enter 6 numbers:
1
```

```
2
3
4
5
6
The numbers are:
numbers[0][0]: 1
numbers[0][1]: 2
numbers[0][2]: 3
numbers[1][0]: 4
numbers[1][1]: 5
numbers[1][2]: 6
```

CODE:

End of Assessment