Department of Computer Engineering
Faculty of Engineering, University of Jaffna
EC2010 – Computer Programming Lab 06

Date:18/11/2020 **Duration: 2 Hours**

Instructions:

- Any plagiarized work will be given **0** marks.
- Submit your lab work as a zip file named ***LAB06_20YYEXXX*** *(20YYEXXX – Your Registration Number)* **on/before the given deadline** via teams.
- The zip file should contain all ".cpp" code files and your report.
- Prepare your lab report with the snippets of the **COMPLETE CODE** and the corresponding outputs. The code **must be** in text format not screen shots.
- Failure to adhere to any of the above instructions may also result in zero marks.
- The .cpp file **MUST** be named 'Q1' , 'Q2', 'Q3', 'Q4', and 'Q5' appropriately. Do not modify these names in any manner.
- **Do not** even annex your index number to the file name. **Do not** change case.

Q1) Write a program in C++ to add the given two numbers using pointers.

```
Enter the first number :7
Enter the second number :4
Addition is 11
```

Q2) Write a C++ program to find the number of characters in your home town by using pointers. Sample output is given below.

Hint: Use a char array to hold the name and use the terminating character '\0'

```
Enter the name of your home town : kilinochchi
Length of kilinochchi is 11
```

Q3) Write a C++ program that declares three one-dimensional arrays named price, quantity, and amount. Each array should be declared in main method and be capable of holding 10 double-precision numbers. The numbers to store in price are 10.62, 14.89, 13.21, 16.55, 18.62, 9.47, 6.58, 18.32, 12.15, and 3.98. The numbers to store in quantity are 4, 8.5, 6, 7.35, 9, 15.3, 3, 5.4, 2.9, and 4.8. Your program should pass these three arrays to a function named extend, which should calculate elements in the amount array as the product of the corresponding elements in the price and quantity

arrays (for example, amount[1] = price[1] * quantity[1]). After calling the function, the values in the Amount array should be displayed in main method.

Q4) Write a function named change, that has an integer parameter and six integer reference parameters named hundreds, fifties, twenties, tens, fives, and ones. The function is to consider the passed integer value as an amount (rupees) and convert the value into the fewest number of equivalent bills. Using the reference parameters, the function should alter the arguments in the calling function. Include the function in a working program and make sure your function is called from main method and returns a value to main method correctly.

Sample output:

```
Enter the amount of money: 17495
17495 has 174 hundreds, 1 fifties, 2 twenties, 0 tens, 1 fives, 0 ones.
```

Q5) Write a C++ program to find the given string is palindrome or not. Here you can do the **case-insensitive match**. Sample output is given below

Hint:A word, phrase, or sequence that reads the same backwards as forwards is called palindrome and you can use the additional header files :eg: #include<cctype>

```
Enter your string :cIViC
String is palindrome
```

Check the below words in your program:

LevEl,rEfeR,Onion