Uva Wellassa University of Sri Lanka
Faculty of Science and Technology
Department of Computer Science and Technology
100 level 1st Semester Examination – May/July 2017
CST121-3 Programming I

Uva Wellassa University

**Part B - Practical**

**Instructions to candidates**
**Duration:** Two (02) hours
**Number of questions:** Four (04)
**Implement all questions**
**Mark allocation:** 60
**Save your programs separately in a folder with your examination number, compress it and upload to the CMS**

1.

a. Write a C programme to check a given number is an odd or even number.
Hint:
Even number is an integer that is evenly divisible by two
Odd number is an integer that is not a multiple of two.

(5 mark)

b. Write a C program to convert a value entered in rupees (Rs.) into United States dollars ($US). Your programme should display the value in $US. The Rs. value must be taken as a keyboard input.
Hint: $US 1 = Rs. 152.00

(5 mark)

c. Write a C programme to calculate the weekly wages of an employee. The pay depends on wages per hour and the number of hours worked. If the employee has worked for more than 30 hours then he gets twice the wages per hour, for every extra hour that he has worked. Your programme should ask for the hours worked and display the total wage the employee earned. Assume that the hourly rate is Rs. 125.00.

(5 mark)

2. Write a C programme that accepts three (03) numbers from the user as keyboard inputs and displays the numbers in increasing order (ascending). Your programme should perform the following tasks;

a. Get the three numbers as keyboard inputs and pass them to a function called sort().

(6 mark)

b. Implement the sort() function that sorts the three numbers from smallest to the largest and displays them on the screen.

(9 mark)

LIBRARY



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3. You are supposed to develop a C programme where you are going to find the minimum, maximum and the average values of an array.

   a. Write a program that will ask the user to enter eight (08) numbers (elements) into the array as keyboard inputs.

   (7 mark)

   b. Define separate functions to achieve the following tasks.

      i. Find the minimum value of the array.
      ii. Find the maximum value of the array.
      iii. Find the average value of the array.
      iv. Display the minimum, maximum and the average values on the screen.

   (2 x 4 = 8 mark)

4.

   a. Write a C programme to read a string (containing only English letters) as a user input and store that string as a character array.

   (5 mark)

   b. Modify the above programme to count the number of vowels and consonants in the string entered by the user.
   Hint: you may use the pointer concept

   (10 mark)