

THE OPEN UNIVERSITY OF SRI LANKA
B.Sc DEGREE PROGRAMME: LEVEL 03
CLOSED BOOK TEST 1: 2015
CPU1141: INTRODUCTION TO COMPUTER PROGRAMMING
DURATION: ONE HOUR (1 HOUR)



Date: 25th January, 2015

Time: 1.00 pm – 2.00 pm

Answer ALL Questions

Q1).

- i. What are the data types you would select to represent the following data in C Language? Briefly explain why you selected the particular type for each data.
 - a) Population of Sri Lanka.
 - b) Number of Students in a class.
 - c) Height of a tree.
- ii. Suppose **a**, **b** and **c** are integer variables that have been assigned the values **a=10**, **b=2** and **c= 3**. Determine the values of each of the following C expressions.
 - a) $n1 = a + (++b)$
 - b) $n2 = a + (b++)$
 - c) $m1 = a - (c++)$
 - d) $m2 = a - (++c)$
 - e) $y = n2 / m2$
 - f) $x = n1 \% m2$
- iii. Write a complete C Program to find the Volume of a Cylinder. Height and radius of the cylinder must be read from the user.
(Note: Volume of a Cylinder = $\pi r^2 h$, where **r** = radius and **h** = height)

Q2).

A)

- i. Write down the 3 main repetition statements in C Language.
- ii. Write the syntax of the **for loop**.
- iii. Initiate a one dimensional integer array named “numbers”. Assign the following values to the array elements.

20, 35, 50, 60, 75

- B) By using the Conditional Operator write a complete program to read the marks of a student and to print his/her grade according to the following criteria.
(Note: If wrong input is given by the user, the output should be printed as “Wrong input”)

Marks	Grade
100 – 70	A
69 – 60	B
59 – 40	C
34 - 00	D

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