

CAVENDISH UNIVERSITY ZAMBIA
COM213: PROGRAMMING IN C ASSIGNMENT

(Alternatively you can use Python)

ANSWER ALL QUESTIONS

(For Full-Time /Part-Time & Distance Learners Students)

Instructions

1. Ensure that all your programs compile and do not have any errors.
2. Use comments where necessary to explain what your code does.
3. All programs should be accompanied by screen shots and documentations.(in Word)
4. Place all you project files in one folder and zip/ or RAR it. Name the zip/rar file using your student number_module name_student name: e.g
000_001_Programming_Surname_Firstname
5. Upon completion upload the zip/RAR file to ClanED
The Assignment must be subjected to Turnitin or any credible anti -
plagiarism tool.
6. Be reminded that you will be required to defend your solutions at some point.(prepare adequately)
7. *The Assignment is due on **20th October, 2023**.Assignment submitted after due date will NOT be marked from the total marks allocated*
8. *Bibliography list of the books must be indicated, preferably use the Harvard Reference*

QUESTION 1

Write a program that calculates and displays the weekly salary for employee who earns \$20 an hour on 30 regular working hours, and earns time and half (wages * 1.5) for over time worked:

Required:

Prompt the User to only enter the number of hours worked.

QUESTION 2

Write a program (*Financial application: future investment*) that reads (prompts) in investment amount, annual interest rate, and number of years to invest, and displays the future investment values from year₁.... Year_T; using the following formula:

$$[Pt = Po (1+r)^t] \quad \text{where; Amount} = \text{principle} * \text{math.pow} (1.0 + \text{rate}, \text{year})$$

QUESTION 3

Write a program (**ZAMTEL Menu**) to simulate the MTN Menu using the Unstructured Supplementary Service Data (USSD) of *117#.

The system should prompts the user to enter a value which will correspond to the required functionalities.

(*Kindly take time to study the CURRENT ZAMTEL USSD MENU *117# quick codes*)

QUESTION 4

Create a program with basic functionalities of a Simple Scientific Calculator.

(Total =100 Point)

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