Program: BS (CS)
Class:
CS19-E
Assignment: 02
Problem Solving
(C++ implementation)

Submission Date:
Thursday
(12th September, 2019)

Course Instructors:
Ebad Majeed/Saba Ghani

Total Marks: 25

Design following programs in Visual C++:

1. Write a program to take a four digit number from user (e.g. 4000 or 3241). Separate all the four digits in that number and print their values after storing them in four different variables e.g. if user entered 4321 your program should store 1 in first variable, 2 in second variable, 3 in third variable and 4 in fourth variable. Program shouldn't use any loops.
2. Write a program to display a message given below using escape sequences:
    a. "Hello World
    I\\
    Love\
    Pakistan\t
    And C++\n"
    Your program should also produce a sound (beep) at the end.
3. Write a program which computes the account balance of a bank account. Consider the following variable which helps in computing balance:
    a. Account balance
    b. Withdrawal amount
    c. Deposit amount
4. Write a program to compute the electricity bill based the following variables:
    a. Number of unit consumed
    b. Per Unit Rate
    c. Tax Rate

Consider TaxRate=21.5%. The bill is computed based on the following formula:
Bill=(numberOfUnits * perUnitRate)*(taxRate/100)+ (numberOfUnits * perUnitRate)

5. Write a program that calculates your daily driving cost, so that you can estimate how much money could be saved by sharing your ride with multiple individuals. The application should input the following information and display the user's cost per day of driving to work:
    a) Total miles driven per day.
    b) Cost per gallon of gasoline.
    c) Average miles per gallon.
    d) Parking fees per day.
    e) Tolls per day

Note: Research online for the formula to calculate saving cost

Submission:

This is an individual assignment and each student has to submit a printed solution of all the problems.

Marking Scheme:

1. Validity (Code and data types) 70%
2. Commenting and indentation 20%
3. Naming Convention 10%