Course Code: CL1002	Course Name: Programming Fundamentals	
Instructor Name: Shoaib Rauf		
Student Roll No:	Section No:	

Instructions:

- Return the question paper.
- Read each question completely before answering it. There are **3 questions and 2 pages**.
- In case of any ambiguity, you may make assumption. However, your assumption should not contradict any statement in the question paper.
- Do not **write** anything on the question paper (except your ID and group).
- **For Exam submission: Use GoogleClassroom Paper Section (RE-MidTerm) to upload the solution file.** Solve each problem in a separate file, Name the code file with a problem no (Task_01, Task_02,.)
- Copy these files (Task_01, Task_02,.) in a folder and name the folder like that **K21XXXX**. Where XXXX is your 4-digit Student Id.
- Now compress that folder using WinRAR software and submit on google-classroom

Time: 90 minutes   **Max Marks: 30 Points**

Question no. 1   **[30 mins, 10 Points]**

Affan wants to withdraw some cash, which he needs urgently. He does not have time to go to the bank and goes through the lengthy procedure of filling the withdrawal receipt and wait for his turn. Therefore, he decided to get that amount from an ATM near his place. He went to the ATM and entered his card in the slot, entered his PIN code. Everything went smooth. Now he enters the required amount and collected the cash, counted it and walks out of there. He wants to know how much amount will result in how many notes.

Note: The ATM can give out only Rs.100, Rs. 500, and Rs.1000 notes. Therefore, amount should be entered keeping that point in mind.

Question no. 2   **[30 mins, 10 Points]**

Write a C program to input mobile minutes and SMS consumed by the user (ON Net, OFF Net) and calculate his/her monthly bill according to the given conditions:

ON Net PerMinute Call Charges
    For first 50 minutes are charged at Rs 0.50/minute
    For next 50 minutes are charged at Rs 0.75/minute
    For more than 100 minutes are charged at Rs 1.20/minute

OFF Net PerMinute Call Charges
    For first 50 minutes are charged at Rs 1.20/minute
    For next 50 minutes are charged at Rs 1.75/minute
    For more than 100 minutes are charged at Rs 2.20/minute

ON Net SMS Charges
  For first 100 messages are charged at Rs 0.35/minute
  For next 50 messages are charged at Rs 0.75/minute
  For more than 150 messages are charged at Rs 1.00/minute

OFF Net SMS Charges
  For first 100 messages are charged at Rs 0.65/minute
  For next 50 messages are charged at Rs 0.95/minute
  For more than 150 messages are charged at Rs 1.20/minute

An additional 5% of your total is added to the bill as W.Holding Tax.

Question no. 3   **[30 mins, 10 Points]**

You need to program a small game for two players. Each of player is given 3 chances to input a character of his/her own choice from a–z or A-Z one by one.

- If the character you entered is between (a-z) that ascii number will be count as score.
- If the character you entered is between (A-Z) that ascii number will be twice and added to your score.
- If you repeat the same number again, your score will become half
- In case, you enter the number that not lies between (a-z) or (A-Z), you get a chance to re-enter it again.
- In the end, compare the scores of both players and prints the message, Player1 or Player2 Wins.
- Also, asks the user do you wish to continue or not, press y to continue and n to quit the game

Happy Coding ☺