



## CL-1002

### Programming Fundamentals

### Lab # 1

#### Objectives:

- Practice on pseudocode

**Note: Carefully read the following instructions (*Each instruction contains a weightage*)**

1. First think about statement problems and then write your logic on Copy / Notebook.
2. Write pseudocode in handwritten on **Paper using Pen.**
3. Write **Your Name** and **Roll No** on your Paper/Sheet's first page.
4. **Do not copy from any source otherwise you will be penalized with negative marks.**
5. Complete your lab **within given Time Slot.**

#### **Problem: Write pseudocode of simple sequence programs.**

1. Read in a number and print it out.
2. Write the steps of making a cup of tea.
3. Write the steps of applying for University Admission.
4. Write the steps of multiplying three numbers.
5. Finding the average of three numbers.
6. Add the four numbers and then take the average of four numbers.
7. Find the area of a Rectangle. (**Area = Length \* Width**)
8. Write the pseudo-code and design flowchart to log in to Instagram account.
9. Write the steps to calculate the percentage of student marks based on Math, Science, English, and Urdu. (**Percentage = (Obtained / Total) \* 100**)
10. Calculate the Interest of a Bank Deposit (**Formula "Interest=Amount\*Years\*Rate/100"**)
11. Convert Temperature from Fahrenheit (°F) to Celsius (°C) (**Formula  $C = 5/9 * (F - 32)$** )
12. Compute the perimeter of a rectangle. (**Perimeter = 2 \* (Length \* Width)**)
13. A brand offered 10% discount on each shirt purchased. The original price of the shirt is 550, find the discounted price of one shirt. Write the pseudocode for this problem statement.



14. Write a program logic that calculates the total of a retail sale. The program should ask the user for the following: the retail price of the item being purchased and the sales tax rate. Once the information has been entered the program should calculate and display the following: the sales tax for the purchase and the total sale.
15. Write a program logic that calculate the total bill of the shopping, a person purchases two keyboards each worth of 100\$, three mouse each worth of 50\$. Calculate the Total in **PKR**.  
**(Note: Dollar to PKR 1\$ = 215PKR)**
16. Write a program that calculates the current balance in a savings account. The program should obtain from the user the following information: the starting balance, the total amount of deposits made, and the total amount of withdrawals made. After the program has calculated the current balance, it should be displayed on the screen. Assume one input for deposits and one input for withdrawals. Make the pseudo-code for this problem.

**You need to done with your exercise within given time.**