Assignment - 02

1. C program to calculate Compound Interest

Example Input
Enter principle (amount): 1200
Enter time: 2
Enter rate: 5.4
Output

Compound Interest = 1333.099243

Compound Interest formula
Formula to calculate compound interest annually is given by.

CI = P(1 + R/100)^T

2. C program to calculate total average and percentage of five subjects

Example Input
Enter marks of five subjects: 95 76 85 90 89
Output

Total = 435
Average = 87
Percentage = 87.00

3. C program to find area of an equilateral triangle
Example Input

Enter side of the equilateral triangle: 10
Output

Area of equilateral triangle = 43.3 sq. units

C equivalent expression to find area of equilateral triangle - (sqrt(3) / 4) * (side * side)

4. Write a C program to print the following characters in a reverse way.
Test Characters: 'X', 'M', 'L'

Expected Output:
The reverse of XML is LMX

5. Write a C program that accepts two item's weight (floating points' values) and number of purchase (floating points' values) and calculate the average value of the items.

Test Data :
Weight - Item1: 15
No. of item1: 5
Weight - Item2: 25
No. of item2: 4
Expected Output:
Average Value = 19.444444

6. Write a C program to calculate a bike's average consumption from the given total distance (integer value) traveled (in km) and spent fuel (in liters, float number – 2 decimal point).

Test Data :
Input total distance in km: 350
Input total fuel spent in liters: 5
Expected Output:
Average consumption (km/lt) 70.000

7. Write a C program to calculate the distance between the two points.

Test Data :
Input x1: 25
Input y1: 15
Input x2: 35
Input y2: 10
Expected Output:
Distance between the said points: 11.1803

8. Write a C program to Swap two Numbers Without Using temporary variable.

9. C program to convert temperature from Fahrenheit to Celsius.

10. Write a C program to input principle, time and rate (P, T, R) from user and find Simple Interest. How to calculate simple interest in C programming.