**Assignment - 01**

**1. Write a C program to print your name, date of birth. and mobile number.**  
    Expected Output:  
  
        Name   : John  
        DOB      : August 15, 1947  
        Mobile : 91-9999999999  
  
  
**2. Write a C program to read and display all type of variables.**  
  
Expected Output:  
    123  
    34.67  
    A  
  
  
**3. Write a C program that accepts an employee's ID, total worked hours of a month and the amount he received per hour. Print the employee's ID and salary (with two decimal places) of a particular month.**  
    Test Data :  
        Input the Employees ID(Max. 10 chars): 0342  
        Input the working hrs: 8  
        Salary amount/hr: 15000  
      **Expected Output:**  
        Employees ID = 0342  
        Salary = U$ 120000.00        
  
  
 4. Write a C program that calculates the volume of a sphere. (Formula : V = 4/3\*π\*r\*r\*r)  
    Expected Output :  
        Input the radius of the sphere : 2.56  
        The volume of sphere is 70.276237.  
  
**5. Write a C program that converts kilometers per hour to miles per hour. (1 KM = 0.621371 M)**  
    Expected Output :  
        Input kilometers per hour: 15  
        9.320568 miles per hour  
**6. Write a program in C that takes minutes as input, and display the total number of hours and minutes.**  
    Expected Output :  
        Input minutes: 546  
        9 Hours, 6 Minutes  
**7.  Write a C program to find the third angle of a triangle if two angles are given.**  
    Expected Output :  
        Input two angles of triangle separated by comma : 50,70  
        Third angle of the triangle : 60  
**8. Write a C program to convert specified days into years, weeks and days.**  
   Note: Ignore leap year.  
  
    Test Data :  
        Number of days : 1329  
    Expected Output :  
        Years: 3  
        Weeks: 33  
        Days: 3  
**9. Write a C program to read an amount (integer value) and break the amount into smallest possible number of bank notes.**  
Note: The possible banknotes are 100, 50, 20, 10, 5, 2 and 1.  
    Test Data :  
        Input the amount: 375  
    Expected Output:  
    There are:  
    3 Note(s) of 100.00  
    1 Note(s) of 50.00  
    1 Note(s) of 20.00  
    0 Note(s) of 10.00  
    1 Note(s) of 5.00  
    0 Note(s) of 2.00  
    0 Note(s) of 1.00  
  
**10. Write a C program to convert a given integer (in seconds) to hours, minutes and seconds.**  
Test Data :  
    Input seconds: 25300  
Expected Output:  
    There are:  
    H:M:S - 7:1:40  
  
  
**11. 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  
  
**12. 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  
  
**13. 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)  
  
  
  
**14. 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  
  
  
**15. 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  
  
**16. 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  
  
  
**17. 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  
  
  
**18. Write a C program to Swap two Numbers Without Using Temporary     Variables.**  
  
  
**19. C program to convert temperature from Fahrenheit to Celsius.**  
  
  
**20. 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.**