TOOLS & TECHNIQUES LAB

Basic Python Programs using Flow control

PROGRAM EXERCISE-1

Lab. Exercise(LE):

1) Write a Python program(WAPP) to input any two integers, and provide a menu to the user to select any of the options as add, subtract, multiply, divide and display the result accordingly.
2) WAPP to check if a year is leap year or not.
3) WAPP to convert temperature from centigrade to Fahrenheit scale.
4) WAPP to add two times in hour, minute & second format entered through the keyboard.
5) WAPP to check given number is Armstrong or not.
6) WAPP to find out the factors of a number.
7) WAPP to print all even number between 100 to 200 using loop.
8) WAPP to find LCM of 2 numbers using while loop.
9) WAPP to findout the distance between two coordinates (x1, y1) & (x2, y2).
10) WAPP to find the multiplication table of any number using for loop.
11) WAPP to find Volume and Surface Area of Cylinder.
12) WAPP to find the roots of a quadratic equation $ax^2+bx+c=0$.
13) KIIT DU has following rules for grading system:

    http://coe.kiit.ac.in/examination-regulations.php#R1

    WAPP to enter your marks of any 5 courses of 2 semesters through keyboard print the corresponding grade.
    Calculate SGPA for each semester and overall CGPA.

14) A student will not be allowed to sit in exam if his/her attendence is less than 70%.

Take following input from user:

- Number of classes held
- Number of classes attended

Print percentage of class attended and check the student is allowed to sit in exam or not.

15) High Radius Company decided to give bonus of 10% to employee if his/her year of service is more than 5 years.

- Enter salary and year of service from keyboard and print the net bonus amount.
- Determine oldest and youngest among 3 employees by taking input(from user) of their age.

Home Exercise(HE):

1) WAPP to convert a quantity in meter entered through keyboard into its equivalent kilometre and meter as per the following format.
   Example. 2430 meter = 2 Km and 430 meter.

2) WAPP to print sum of all prime number between 1 to n using loop.

3) WAPP to display the reverse of a number entered through keyboard.

4) WAPP to convert a decimal number into its equivalent number with base b.
   Decimal number and b are the user input.

5) WAPP to sum the following series S=1+(1+2)+(1+2+3)+...+(1+2+3+...+n)