

INDIAN SCHOOL MUSCAT
SENIOR SECTION
COMPUTER SCIENCE (083) CLASS XII (2020-2021)
WORKSHEET 4 : USING PYTHON LIBRARIES

- 1 Write a program that reads a number then converts it into octal and hexadecimal equivalent numbers using built in functions in Python.

- 2 Write a program in Python that calculates the following :
 - Area of circle
 - Circumference of a circle
 - Area of a rectangle
 - Perimeter of a rectangle

Create respective modules (two modules : circle and rectangle) for each of the operation and call them using menu driven program.

Sample output screen :

Menu

1. Area of a Circle
2. Circumference of a Circle
3. Area of a Rectangle
4. Perimeter of a Rectangle
5. Quit

Enter Your Choice 1

Enter the radius of circle 3

The area is 28.274333882308138

- 3 Create a module of lengthconversion.py that stores function for various length conversion : miletokm, kmtomile, feettoinches and inchestofeet. Create another module Massconversion.py that stores information for mass conversion

- 4 Write a program to randomly generate a number from the range 100-1000 both inclusive and print the generated number as :
Randomly selected lucky viewer is : <number>
- 5 Write a program to calculate the sum of the digits of a random three digit number.
- 6 Write a program using function fill_list(list, limit_num, low, high) where list is empty list, limit_num is how many numbers in the list, low is the minimum value and high is the maximum value in the list. The function should fill the list with numbers using randint().
Print the list in the main function.

Sample input for the program:

Input Minimum Value : 10

Input Maximum Value : 50

Numbers limit : 5

The values in the list : [33, 25, 10, 13, 20]