**Module 2**

**Python Assignment 3**

**1)Write a Python program to find area of a circle using math function.**

import math

r=float(input('enter the radius:\n'))

ar=math.pi\*r\*r

print("area of a circle is %2f" %ar)

**2) Write a program to find Area of Regular Polygon using math function**

from math import tan, pi

n\_sides = int(input("Input number of sides: "))

s\_length = float(input("Input the length of a side: "))

p\_area = n\_sides \* (s\_length \*\* 2) / (4 \* tan(pi / n\_sides))

print("The area of the polygon is: ",p\_area)

**3) Write a program to find Area of a Segment of a Circle Formula using math function.**

from random import shuffle

list=[100,1,2,3,30,40,"hai","hello"]

shuffle(list)

print(list)

**4) Write a python program to shuffle listl1=[100,1,2,3,30,40,”hai”,”hello”].**

from random import shuffle

list=[100,1,2,3,30,40,"hai","hello"]

shuffle(list)

print(list)

**5) Write a program to generate random numbers between 1,10000 and difference between each random number is 50.**

import random

num1=random.randrange(1,10000,50)

print(num1)

num2=random.randrange(1,10000,50)

print(num2)

**6) Write a python program by using math module to find**

1. **Sin600**
2. **cos(pi)**
3. **tan900**
4. **angle of sin(0.8660254037844386)**
5. **5^8**
6. **Square root of 400**
7. **The value of 5^e**
8. **The value of Log(1024), base 2**
9. **The value of Log(1024), base 10**
10. **The Floor and Ceiling value of 23.56**

import math

print(math.sin(60))

print(math.cos(math.pi))

print(math.tan(90))

angle=math.sin(0.8660254037844386)

print(math.degrees(angle))

print(math.pow(5,8))

print(math.sqrt(400))

print(math.pow(5,math.e))

print(math.log2(1024))

print(math.log10(1024))

print(math.floor(23.56))

print(math.ceil(23.56))