Programming Assignment-1 Submited By : Bhupendra Singh

**Qus 1.Write a Python program to print 'Hello Python' ?**

print('Hello Python')

Hello Python

**Qus 2.Write a Python program to do arithmetic operations addition and division ?**

import operator

ops = { "+": operator.add, "-": operator.sub, "\*":operator.mul, "/":operator.truediv }

print('Select a Arithmetic Operation: \

\n1.Addition(+)\

\n2.Division(-)\

\n2.Multiplication(\*)\

\n4.Division(/)\

\n3.Stop(0)\n')

while True:

operator = input('Enter a arithmetic operation -> ')

if operator == '0':

print("Program Stopped successfully")

break

elif operator not in ['+','-','\*','/']:

print("Please enter a valid operator")

else:

num\_1 = int(input('\nEnter 1st Number: '))

num\_2 = int(input('Enter 2nd Number: '))

print('{}{}{}={}\n'.format(num\_1, operator, num\_2, ops[operator](num\_1,num\_2)))

Select a Arithmetic Operation:

1.Addition(+)

2.Division(-)

2.Multiplication(\*)

4.Division(/)

3.Stop(0)

Enter a arithmetic operation -> +

Enter 1st Number: 10

Enter 2nd Number: 20

10+20=30

Enter a arithmetic operation -> -

Enter 1st Number: 10

Enter 2nd Number: 20

10-20=-10

Enter a arithmetic operation -> \*

Enter 1st Number: 20

Enter 2nd Number: 10

20\*10=200

Enter a arithmetic operation -> /

Enter 1st Number: 200

Enter 2nd Number: 2

200/2=100.0

Enter a arithmetic operation -> 0

Program Stopped successfully

**Qus3.Write a Python program to find the area of a triangle ?**

height = int(input('Enter height of triangle: '))

base = int(input('Enter base of triangle: '))

def areaOfTriangle(height, base):

print('\nArea of triangle ->', 0.5\*height\*base)

areaOfTriangle(height,base)

Enter height of triangle: 70

Enter base of triangle: 20

Area of triangle -> 700.0

**Qus 4.Write a Python program to swap two variables ?**

num\_1 = int(input("Enter First Number: "))

num\_2 = int(input("Enter Second Number: "))

def swapNumbers(a,b):

temp = a

a = b

b = temp

return a,b

print('Before swapping -> ',num\_1, num\_2)

num\_1, num\_2 = swapNumbers(num\_1, num\_2)

print('After swapping -> ',num\_1,num\_2)

Enter First Number: 20

Enter Second Number: 30

Before swapping -> 20 30

After swapping -> 30 20

**Qus 5.Write a Python program to generate a random number ?**

from random import randint

def generateRandomNumber(start=0, end=100000):

print('Random number -> ',randint(start,end))

# Generating random numbers without arguments

generateRandomNumber()

# Generating random numbers with arguments

generateRandomNumber(0,100)

Random number -> 75610

Random number -> 34