**Assignment: 1st**

**Que. 1:** **Write a Python program to print & quot ; Hello Python&quot;?**

**Ans:** Below is Python program to print "Hello Python":

**Code:** print("Hello Python")

**Que.2:** Write a Python program to do arithmetical operations addition and division.?

**Ans:** Below are python program to do arithmetical operations addition and division.

**Addition:**  def addition(a, b):

return a + b

**Division:** def division(a, b):

if b == 0:

return "Error: Division by zero!"

else:

return a / b

**Example :**

num1 = 10

num2 = 5

print("Addition:", addition(num1, num2))

print("Division:", division(num1, num2))

**Que. 3: Write a Python program to find the area of a triangle?**

**Ans:** As we know Area of a Triangle is: **Area = 1 \ 2 ​× base × height**

Python program to compute the area of a triangle:

def triangle\_area(base, height):

return 0.5 \* base \* height

**Example:** base\_length = 6 and height\_length = 4

area = triangle\_area(base\_length, height\_length)

print("Area of the triangle:", area)

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

**Ans:** We can swap the values of two variables in Python using a temporary variable or by directly swapping them without using a temporary variable.

1. **Using a temporary variable:**

def swap\_with\_temp(a, b):

temp = a

a = b

b = temp

return a, b

**Example:**

x = 5

y = 10

print("Before swapping: x =", x, "and y =", y)

x, y = swap\_with\_temp(x, y)

print("After swapping: x =", x, "and y =", y)

1. **Without Using temporary variable:**

def swap\_without\_temp(a, b):

return b, a

**Example usage:**

x = 5

y = 10

print("Before swapping: x =", x, "and y =", y)

x, y = swap\_without\_temp(x, y)

print("After swapping: x =", x, "and y =", y)

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

**Ans:** We can generate random numbers in Python using the random module. Below is a simple program to generate a random number:

import random

def generate\_random\_number():

return random.random() # Generates a random float between 0 and 1

**Example :**

random\_number = generate\_random\_number()

print("Random number:", random\_number)