**Assignment-1**

**Assignment given date: 30th April**

**Assignment submission date: 16th May**

1. What is the maximum possible length of an identifier?
2. List some Python Variable Naming Rules
3. What will be the output of?

a = 12

x = a >> 2

y = a << 1

print(x, y)

1. What is the use of indentation in python?
2. What is the output of: print 1 + 2 \* float(3) / 4 – 5 ?
3. How are complex numbers represented in python?
4. How to define Constants in Python?
5. Write a program in python to calculate area of triangle by heron’s formula? Where s = (a+b+c)/2 and Area = √ s(s-a)(s-b)(s-c)
6. Execute and write down the outputs:

List = [1, 2, 3, 4, 5, 6, 7, 8, 9]  
# Display sliced list  
print(List[3:9])  
print(List[3:9:2])  
print(List[3:9:3])  
print(List[3:9:8])  
print(List[9:11])  
print(List[::2])  
print(List[::4])  
print(List[::])  
print(List[::-1])  
print(List[::-3])  
print(List[:1:-2])  
print(List[1:1:1])

1. Write a program to perform following tasks:

- Read a list of integers from a user.

- Display the count of occurrence of each number

- Create two new lists containing the even and odd numbers from the original list.

**11**. Read radius of a circle and side of a square from user using single input() method. Then calculate and display area of the circle and the square.

**12**. Explain the usage of below string operations:

lower()

isupper()

startswith()

join()

split()

rjust(\*)

center()

lstrip()

**13**. Explain the usage of below list operations:

Append, extend, insert, remove, pop, count, index, clear

**14**. Python Program to check whether a number is Palindrome or not

**15**. Python Program to check whether a number is Prime or not