PYTHON – WORKSHEET 1

1. Which of the following operators is used to calculate remainder in a division?
    A. #
    B. &
    C. %
    D. $

Answer: C. %

2. In python 2//3 is equal to?

A) 0.666

B) 0

C) 1

D) 0.67

Answer: A)0.666

3. In python, 6<<2 equal to?

A) 36

B) 10

C) 24

D) 45

Answer: B) 10

4. In python, 6&2 will give which of the following as output?

A) 2

B) True

C) False

D) 0

Answer: D) 0

5. In python, 6|2 will give which of the following as output?

A) 2

B) 4

C) 0

D) 6

Answer: B) 4

6. What does the finally keyword denotes in python?
A) It is used to mark the end of the code

B) It encloses the lines of code which will be executed if any error occurs while executing the lines of code in the try block.
C) the finally block will be executed no matter if the try block raises an error or not.
D) None of the above

Answer: D) None of the above

7. **What does raise keyword is used for in python?**

   A) It is used to raise an exception.

   B) It is used to define lambda function

   C) it's not a keyword in python.

   D) None of the above

Answer: A) It is used to raise an exception.

8. **Which of the following is a common use case of yield keyword in python?**

   A) in defining an iterator

   B) while defining a lambda function

   C) in defining a generator

   D) in for loop.

Answer: C) in defining a generator

9. Which of the following are the valid variable names?

   A) _abc

   B) 1abc

   C) abc2

   D) None of the above

Answer: D) None of the above

10. Which of the following are the keywords in python?

    A) yield

    B) raise

    C) look-in

    D) all of the above

Answer: D) all of the above

11. Write a python program to find the factorial of a number.

Answer: # change the value for a different result

num = 7

```
# To take input from the user
#num = int(input("Enter a number: "))
factorial = 1
# check if the number is negative, positive or zero
if num < 0:
  print("Sorry, factorial does not exist for negative numbers")
elif num == 0:
  print("The factorial of 0 is 1")
else:
  for i in range(1,num + 1):
    factorial = factorial*i
  print("The factorial of",num,"is",factorial)
```

12. Write a python program to find whether a number is prime or composite.

Answer:

```
#Input a number and check if the number is prime or composite number
n= int(input("Enter any number:"))
if(n ==0 or n == 1):
   printf(n,"Number is neither prime nor composite")
elif n>1 :
   for i in range(2,n):
      if(n%i == 0):
         print(n,"is not prime but composite number")
         break
   else:
      print(n,"number is prime but not composite number")
else :
   print("Please enter positive number only ")
```

13. Write a python program to check whether a given string is palindrome or not.

Answer:

```
# function which return reverse of a string
def isPalindrome(s):
          return s == s[::-1]
```

```
# Driver code
s = "malayalam"
ans = isPalindrome(s)
if ans:
        print("Yes")
else:
        print("No")
```

14. Write a Python program to get the third side of right-angled triangle from two given sides.

Answer:

```
from math import sqrt
print("Input lengths of shorter triangle sides:")
a = float(input("a: "))
b = float(input("b: "))
c = sqrt(a**2 + b**2)
print("The length of the hypotenuse is:", c )
```

15. Write a python program to print the frequency of each of the characters present in a given string.

Answer:

```
# Python3 code to demonstrate
# each occurrence frequency using
# naive method

# initializing string
test_str = "GeeksforGeeks"

# using naive method to get count
# of each element in string
all_freq = {}

for i in test_str:
        if i in all_freq:
                all_freq[i] += 1
```

```
        else:
                all_freq[i] = 1


# printing result
print("Count of all characters in GeeksforGeeks is :\n "
        + str(all_freq))
```