INTERNSHIP TASK – 4
PYTHON – WORKSHEET 1

1) C) %

2) A) 0.666

3) A) 36

4) A) 2

5) C) 0

6) 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.

7) A) It is used to raise an exception.

8) A) in defining an iterator

9) D) None of the above

10) A) yield

*11) Write a python program to find the factorial of a number
Ans:
```
def factorial(n):
# single line to find factorial
return 1 if (n==1 or n==0) else n * factorial(n - 1);
# Driver Code
num = 5;
print("Factorial of",num,"is",
factorial(num))
```

*12) Write a python program to find whether a number is prime or composite
Ans:
```
num = 11
# If given number is greater than 1
if num > 1:
   # Iterate from 2 to n / 2
   for i in range(2, int(num/2)+1):
      # If num is divisible by any number between
      # 2 and n / 2, it is not prime
```

```
if (num % i) == 0:
        print(num, "is not a prime number")
        break
   else:
    print(num, "is a prime number")
else:
print(num, “is not a prime number”)
```

*13) Write a python program to check whether a given string is palindrome or not
Ans:

```
# 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.
Ans:

```
def pythagoras(opposite_side,adjacent_side,hypotenuse):
      if opposite_side == str("x"):
         return ("Opposite = " + str(((hypotenuse**2) - (adjacent_side**2))**0.5))
      elif adjacent_side == str("x"):
         return ("Adjacent = " + str(((hypotenuse**2) - (opposite_side**2))**0.5))
      elif hypotenuse == str("x"):
         return ("Hypotenuse = " + str(((opposite_side**2) + (adjacent_side**2))**0.5))
      else:
         return "You know the answer!"

print(pythagoras(3,4,'x'))
```

```
print(pythagoras(3,'x',5))

print(pythagoras('x',4,5))

print(pythagoras(3,4,5))
```

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

Ans:
```
# 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))
```