**WORKSHEET-1**

**PYTHON**

**Q1 to Q8 have only one correct answer. Choose the correct option to answer your question.**

**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:--** B) 0

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

**A) 36**

**B) 10**

**C) 24**

**D) 45**

**ANSWER:--** C) 24

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

**A) 2**

**B) True**

**C) False**

**D) 0**

**ANSWER:--** A) 2

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

**A) 2**

**B) 4**

**C) 0**

**D) 16**

**ANSWER:--**

**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:--** C) the finally block will be executed no matter if the try block raises an error or not.

**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

**Q9 and Q10 have multiple correct answers. Choose all the correct options to answer your question.**

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

**A) \_abc**

**B) 1abc**

**C) abc2**

**D) None of the above**

**ANSWER:--**

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

**A) yield**

**B) raise**

**C) look-in**

**D) all of the above**

**ANSWER**:-- A) yield

B) raise

**Q11 to Q15 are programming questions. Answer them in Jupyter Notebook.**

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

# Python program to find the factorial of a number provided by the user.

# 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.

# Program to check if a number is prime or not

num = 407

# To take input from the user

#num = int(input("Enter a number: "))

# prime numbers are greater than 1

if num > 1:

# check for factors

for i in range(2,num):

if (num % i) == 0:

print(num,"is not a prime number")

print(i,"times",num//i,"is",num)

break

else:

print(num,"is a prime number")

# if input number is less than

# or equal to 1, it is not prime

else:

print(num,"is not a prime number")

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

# 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.**

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.**

*Simply iterate through the string and form a key in dictionary of newly occurred element or if element is already occurred, increase its value by 1.*

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| --- |
| # Python3 code to demonstrate  # each occurrence frequency using  # naive method    # initializing string  test\_str = "Anaconda"    # 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 Anaconda is :\n "                                          +  str(all\_freq) |