PYTHON – WORKSHEET 1

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) $

2. In python 2//3 is equal to?
   A) 0.666   B) 0
   C) 1   D) 0.67

3. In python, 6<<2 is equal to?
   A) 36   B) 10
   C) 24   D) 45

4. In python, 6&2 will give which of the following as output?
   A) 2   B) True
   C) False   D) 0

5. In python, 6|2 will give which of the following as output?
   A) 2   B) 4
   C) 0   D) 6

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

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

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.

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

10. Which of the following are the keywords in python?
    A) yield   B) raise
    C) look-in   D) all of the above

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

11. Write a python program to find the factorial of a number.
12. Write a python program to find whether a number is prime or composite.
13. Write a python program to check whether a given string is palindrome or not.
14. Write a Python program to get the third side of right-angled triangle from two given sides.
15. Write a python program to print the frequency of each of the characters present in a given string.

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

```python
# Program to find the factorial number through Math function
import math
def factorial(n):
    return(math.factorial(n))


# Provide the value of the number
factnum = 8
print("Factorial of entred number is ", factnum, "is",
    factorial(factnum))
```

@@

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

```python
# Factorial program through if else
def factorial(a):
    if a < 0:
        return 0
    elif a == 0 or a == 1:
        return 1
    else:
        fact = 1
        while(a > 1):
            fact *= a
            a -= 1
        return fact


number = 5;
print(" The factorial of number is ",number,"is",
factorial(number))
```

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

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

Enter the number to be checked

numcheck = 3

if numcheck > 1:

  for i in range(2,numcheck):

    if (numcheck % i) == 0:

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

      break

  else:

    print(numcheck,"is a prime number")

else:

  print(numcheck,"is composite number")

@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@

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

Find the string is Palidrome or not

def isPalindrome(str):

  # Run loop from 0 to len/2

  for i in range(0, int(len(str)/2)):

    if str[i] != str[len(str)-i-1]:

      return False

```python
    return True


# Enter the string
word = "malayalam"
reverse = isPalindrome(word)


if (reverse):
    print("Yes , the Enter string is palidrome")
else:
    print("No, the Enter string is palidrome")
```

@@

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


```python
# Define the funcntion as the per the side available and


def pytha(opposite_side,adjacent_side,hypotenuse):
    if opposite_side == str("x"):
        return ("Opposite side of triangle is = " + str(((hypotenuse**2) - (adjacent_side**2))**0.5))
    elif adjacent_side == str("x"):
        return ("Adjacent side of the triangle is = " + str(((hypotenuse**2) - (opposite_side**2))**0.5))
    elif hypotenuse == str("x"):
        return ("Hypotenuse of the triangle is = " + str(((opposite_side**2) + (adjacent_side**2))**0.5))
    else:
        return "Pythagoras theorem "


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

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

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

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

@@

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

```
# Import the counter

from collections import Counter


# Enter the string to be checked

teststr = "DataMind"


# using collections.Counter() to get

# count of each element in string

result = Counter(teststr)


# printing result

print ("Count of all characters enetered :\n "

                                        + str(result))
```