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) $
   Ans: C
2. In python 2//3 is equal to?
   A) 0.666 B) 0
   C) 1 D) 0.67
   Ans: B
3. In python, 6<<2 is equal to?
   A) 36 B) 10
   C) 24 D) 45
   Ans: C
4. In python, 6&2 will give which of the following as output?
   A) 2 B) True
   C) False D) 0
   Ans: A
5. In python, 6|2 will give which of the following as output?
   A) 2 B) 4
   C) 0 D) 6
   Ans: D
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
   Ans: C
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
   Ans: A
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.
   Ans: C

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

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

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

Ans:

```
num = int(input("Enter a number: ")) #Take user input
fact=1
for i in range(1,num+1): #Iteration for calculating factorial 1*2...*n
    fact=fact*i
     print("The factorial for",num ,"is", fact) #Printing factorial
```

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

Ans:

```
num = int(input("Enter a number : ")) #Take user input
# Number below 1 are neither prime nor composite
if num > 1 :
   for i in range(2,int(num/2)+1): # for loop from 2 to n/2 to reduce iterations
      if(num % i ==0):
         print(num, "is Composite number")
         break #to break the iteration where the condition is true
   else:
      print(num,"is Prime number")
else:
   print(num,"is not Prime number")
```

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

Ans :

```
string = input("Enter a word : ") # Take user input
x=""
for i in string: # Reverse the string
   x=i+x
if x==string :  # Compare
    print(x,"The String is Palindrome")
else:
   print(x,"no")
```

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

Ans**:**

```
import math #import math library
side1 = int(input("Enter side 1 : ")) #Take user input
side2 = int(input("Enter side 2 : ")) #Take user input
side3 = math.sqrt((side1**2) + (side2**2)) #Formula a^2 +b^2=c^2
print("The third side of right angled triangle is",side3)
```

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

Ans:

```
str1 = input("Enter a word : ")# take input eg: Ponny12321y
dic={} #Create empty dictionary
for keys in str1:
   dic[keys]=dic.get(keys,0)+1 #incrementing keys
print(dic)
```