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) 0

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

A) 36 B) 10

C) 24 D) 45

Ans : C) 24

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

A) 2 B) True

C) False D) 0

Ans : A) 2

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

A) 2 B) 4

C) 0 D) 6

Ans : 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

Ans : 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

Ans : 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.

Ans : 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

Ans : A) _abc and C) abc2

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

A) yield B) raise

C) look-in D) all of the above

Ans : 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.

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

In [57]:
```
a=int(input('Enter a number : '))
f=1
if a<0 :
    print("No factorial for negative numbers.")
elif a==0 or a==1 :
    print("Fctorial is 1.")
else :
    for i in range(1,a+1) :
        f=f*i
    print("Factorial of", a ,"is :", f)
```

```
Enter a number : 6
Factorial of 6 is : 720
```

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

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

In [58]:
```
b=int(input("Enter a number : "))

if b>1:
    for i in range(2,int(b/2)+1) :
        if b%i==0 :
            print('{} is a composite number'.format(b))
            break
    else :
        print('{} is a prime number.'.format(b))

else :
    print('{} is neither prime nor a composite number.'.format(b))
```

```
Enter a number : 4
4 is a composite number
```

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

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

In [59]:
```
def ispalindrome(s) :
    return s[::-1]

s=input('Enter a string : ')
ans=ispalindrome(s)

if s==ans :
    print("String is Palindrome.")
else :
    print("String is not Palindrome.")
```

```
Enter a string : madam
String is Palindrome.
```

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

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

In [60]:
```
import numpy as np
t1=int(input("Enter 1st side of right angled triangle : "))
t2=int(input("Enter 2nd side of right angled triangle : "))
def rightangle(t1,t2) :
    return np.sqrt((t1*t1)+(t2*t2))
t3=rightangle(t1,t2)
print("Third side of the triangle is : %.2f" % t3)
```

```
Enter 1st side of right angled triangle : 3
Enter 2nd side of right angled triangle : 4
Third side of the triangle is : 5.00
```

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

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

In [61]:
```
# Approach 1
d1=input('Enter a string : ')
d2={}
for i in d1 :
    if i in d2 :
        d2[i]+=1
    else :
        d2[i]=1

print(d2)
```

```
Enter a string : sweet
{'s': 1, 'w': 1, 'e': 2, 't': 1}
```

In [62]:
```
#Approach 2
from collections import Counter
s1=input('Enter a string : ')
res=Counter(s1)
print('Counts are : '+ str(res))
```

```
Enter a string : arjita saxena
Counts are : Counter({'a': 4, 'r': 1, 'j': 1, 'i': 1, 't': 1, ' ': 1, 's': 1, 'x': 1, 'e': 1, 'n': 1})
```