

In [2]: *#1. Which of the following operators is used to calculate remainder in a division?*  
*#Ans = Modulo operator (%), option C*  
*# Example :*  
*10%2*

Out[2]: 0

In [3]: *15%4*

Out[3]: 3

In [4]: *#2. In python 2//3 is equal to?*  
*#Ans = 0, option B*  
*2//3*

Out[4]: 0

In [6]: *#3. In python, 6<<2 is equal to?*  
*#Ans = 24, option C*  
*6<<2*

Out[6]: 24

In [7]: *#4. In python, 6&2 will give which of the following as output?*  
*#Ans = 2, option A*  
*6&2*

Out[7]: 2

In [8]: *#5. In python, 6/2 will give which of the following as output?*  
*#Ans = 6, option D*  
*6|2*

Out[8]: 6

In [10]: *#6. What does the finally keyword denotes in python?*  
*#Ans = option B, It encloses the lines of code which will be executed if any error occurs*

In [11]: *#7. What does raise keyword is used for in python?*  
*#Ans = option A) It is used to raise an exception*

In [12]: *#8. Which of the following is a common use case of yield keyword in python?*  
*#Ans = option C) in defining a generator*

In [13]: *#9. Which of the following are the valid variable names?*  
*#Ans = option A) \_abc and option C) abc2*

In [14]: *#10. Which of the following are the keywords in python?*

*#Ans = Option A) yield and option B) raise*

In [1]: *#11. Write a python program to find the factorial of a number*

```
In [8]: num=int(input("Enter a number: "))
factorial=1
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)
```

Enter a number: 5  
The factorial of 5 is 120

In [9]: *#12. Write a python program to find whether a number is prime or composite.*

```
In [24]: num=int(input("Enter any number: "))
if num>1:
    for i in range(2,num):
        if (num%i)==0:
            print(num," is not a prime number")
            break
    else:
        print(num, " is a PRIME number")
elif num==0 or 1:
    print(num, " is a neither prime NOR composite number")
else:
    print(num, " is NOT a prime number it is a COMPOSITE number")
```

Enter any number: 155  
155 is not a prime number

In [25]: *#13. Write a python program to check whether a given string is palindrome or not*

```
In [34]: str_1 = input("Enter the string to check if it is a palindrome: ")
str_1 = str_1.casefold()
rev_str=reversed(str_1)
if(list(str_1))==list(rev_str):
    print("The string is a palindrome")
else:
    print("The string is not a palindrome")
```

Enter the string to check if it is a palindrome: udayadu  
The string is a palindrome

In [35]: *#14. Write a Python program to get the third side of right-angled triangle from two given sides*

```
In [3]: import math

a=float(input("Enter base: "))
b=float(input("Enter height: "))
```

```
x= float(input("Enter angle: "))

c= math.sqrt(a**2+b**2)

print("Hypotenuse =",c)
```

Enter base: 10  
Enter height: 5  
Enter angle: 90  
Hypotenuse = 11.180339887498949

In [4]: *#15. Write a python program to print the frequency of each of the characters present in a string*

```
In [10]: my_string="PRATIKSHA"

for i in my_string:
    frequency=my_string.count(i)
    print(str(i)+": "+str(frequency))
```

P: 1, R: 1, A: 2, T: 1, I: 1, K: 1, S: 1, H: 1, A: 2,

```
In [11]: my_string="hello world"

for i in my_string:
    frequency=my_string.count(i)
    print(str(i)+": "+str(frequency))
```

h: 1  
e: 1  
l: 3  
l: 3  
o: 2  
 : 1  
w: 1  
o: 2  
r: 1  
l: 3  
d: 1