**PYTHON**(Worksheet-1)

1. (C)

2. (B)

3. (C)

4. (A)

5. (6)

6. (C)

7. (A)

8. (A)

9. (A, C)

10. (A, B)

11. #find the factorial of a number

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

factorial=1

if num < 0:

print("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. #find whether a number is prime or composite

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

if num > 1:

for i in range(2,num):

if (num % i) == 0:

print(num,"is a composite number")

break

else:

print(num,"is a prime number")

else:

print(num,"is a composite number")

13. #whether a given string is palindrome or not

my\_str=input("enter a string:")

my\_str = my\_str.casefold()

rev\_str = reversed(my\_str)

if list(my\_str) == list(rev\_str):

print("The given string is a palindrome.")

else:

print("The given string is not a palindrome.")

14. #find the third side of a right-angled triangle from two given sides

def pytho(opposite\_side,adjacent\_side,hypotenuse):

if opposite\_side == str("x"):

return ("Opposite = " + str(((hypotenuse\*\*2) - (adjacent\_side\*\*2))\*\*0.5))

elif adjacent\_side == str("x"):

return ("Adjacent = " + str(((hypotenuse\*\*2) - (opposite\_side\*\*2))\*\*0.5))

else hypotenuse == str("x"):

return ("Hypotenuse = " + str(((opposite\_side\*\*2) + (adjacent\_side\*\*2))\*\*0.5))

print(pytho(12,5,"x"))

print(pytho(12,"x",13))

print(pytho("x",5,13))

15. # count the frequency of each character present in a string

text=input("Enter a string : ")

count= {}

for keys in text:

count[keys] = count.get(keys, 0) + 1

print ("Counts : \n" + str(count))