**PYTHON WORKSHEET - 1**

**Question and Answer of all question from 1 to 8**

**Ans 1-** C - %
**Ans 2-** B - 0
**Ans 3-** C - 24
**Ans 4-** C - False
**Ans 5-** C - 0
**Ans 6-** C - The finally block will be executed no matter if the try block raises an error or not.
**Ans 7-** A - It is used to raise an exception.
**Ans 8-** C - In defining a generator.

**Question and Answer of 9 and 10**

**Ans 9-** A- _abc
**Ans 10**- A- Yield

**Question and Answer from 11 to 15**

**Ans 11**- The factorial of a number is the product of all the integers below it till 1.
For example : Factorial of 4 is 4*3*2*1 which is 24.

It is mathematical operation if we want to calculate the factorial

Factorial of number using for loop :

```
n1 = int ( int (“ Enter any number : ”))
Fact = 1
If n1 < 0:
    Print (“Enter positive integer”)
else n1== 0:
    Print (“Factorial of 0 is 1”)
else:
     For i in range (1, n1+1):
          Fact = fact * i
     Print (“Factorial of “, n1,” is: ”, fact)
```

Output:-
Enter any number : 8
Factorial of 8 is : 40320

**Ans12- Prime or Composite number**

```
num= int (intput (“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”).
```

**Ans13 - Palindrome using loop**

```
str = input (“enter your string: ”)
length = len (str)
str = str. lower()
mid = length // 2
rev = -1
for x in range (mid):
    if str [x] == str [rev]:
      X += 1
      rev -= 1
 else :
       Print (str, “is not a palindrome”)
       break
  else :
       Print (str, “is a palindrome”)
```

* Palindrome using function of string

```
def  palindrome (str):
      rev = str [ : : -1]
      If str == rev:
         Print (str, “ is a palindrome”)
   else :
         Print (str, “is not a palindrome”)
str = input (“enter your string: ”)
str = str. lower()
palindrome (str).
```

**Ans14-**

```
def pythogoras (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))
    elif hypotenuse == str(“x”):
       return (“hypotenuse = ” str ((( opposite_side**2) + ( adjacent_side**2))**0.5))
```

```
else :
        return
        Print (pythogoras (3,4,x))
        Print (pythagoras (3,x,5))
        Print (pythagoras (x,4,5))
        Print (pythagoras (3,4,5))

Output:
        Hypotenusae = 5.0
        Adjacent = 4.0
        Opposite = 3.0
```

**Ans15-**

```
# taking the input
S = input (“Enter the string :”)
# calculating the length of the string

n = len (s)
s = s.lower()

# counting the frequency of each character

for i in range (n):

        c = 1
        If (s [i] ! = ‘ \0’) :
            For j in range (i + 1, n) :
                if  s [i] == s [j]:
                    c+= 1

                    s = s[ : j ] + ‘\0’ + s [ j+1:]
                    print (“The frequency of ’ ”, s [ i ], ” ’ is:”)
```