PYTHON – WORKSHEET 1

1. Which of the following operators is used to calculate remainder in a division?
   Ans: %
2. In python 2//3 is equal to?
   Ans: 0
3. In python, 6<<2 is equal to?
   Ans: 24
4. In python, 6&2 will give which of the following as output?
   Ans: 2
5. In python, 6|2 will give which of the following as output?
   Ans: 6
6. What does the finally keyword denotes in python?
   Ans: 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?
   Ans: It is used to raise an exception.
8. Which of the following is a common use case of yield keyword in python?
   Ans: in defining a generator
9. Which of the following are the valid variable names?
   Ans: _abc and abc2
10. Which of the following are the keywords in python?
    Ans: yield and raise
11. Write a python program to find the factorial of a number.

```
n=int(input("Enter a Number: "))
fact=1
if n<0:
    print("fact not find for -ve number")
elif n==0:
    print("fact of 0 is 1")
else:
    for i in range(1,n+1):
        fact=fact*i
print("Factorial of",n,"is",fact)
```

```
Enter a Number: 11
Factorial of 11 is 39916800
```

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

```
n=int(input("Enter a Number: "))
if n < 1:
    print("number must be greater than 1")
elif n==1:
    print("number is neither prime nor composite")
else:
    for i in range(2,(n//2)+1):
        if n % i == 0:
            print("number is a composite number")
            break
    else:
        print("number is a prime number")
```

```
Enter a Number: 10
number is a composite number
```

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

```
s= input("Enter a value: ")
r=s[::-1]
if(s==r):
    print("given string is palindrome")
else:
    print("given string is not palindrome")
```

```
Enter a value: madam
given string is palindrome
```

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

```
def pythagoras(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 "Answer found"
print(pythagoras(3,4,'x'))
print(pythagoras(3,'x',5))
print(pythagoras('x',4,5))
print(pythagoras(3,4,5))
```

```
Hypotenuse = 5.0
Adjacent = 4.0
Opposite = 3.0
Answer found
```

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

```
s = input("Enter String: ")
# print(s)
l = list(s)
# print(l)
freq = [l.count(ele) for ele in l]
# print(freq)
d=dict(zip(l,freq))
print(d)
```

```
Enter String: Welcome
{'W': 1, 'e': 2, 'l': 1, 'c': 1, 'o': 1, 'm': 1}
```