Python – Worksheet – 1 (Answers)

1. Which of the following operators is used to calculate remainder in a division?
<u>Answer :</u> C) %

2. In python 2//3 is equal to?
<u>Answer :</u> B) 0

3. In python, 6<<2 is equal to?
<u>Answer :</u> C) 24

4. In python, 6&2 will give which of the following as output?
<u>Answer :</u> A) 2

5. In python, 6|2 will give which of the following as output?
<u>Answer:</u> D) 6

6. What does the finally keyword denotes in python?
<u>Answer:</u>
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?
<u>Answer:</u> A) It is used to raise an exception.

8. Which of the following is a common use case of yield keyword in python?
<u>Answer:</u> 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?
<u>Answer:</u> A) _abc , C) abc2

10. Which of the following are the keywords in python?
<u>Answer:</u> 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.
Answer:

Syntax:

```
number = int(input("Enter a number"))

factorial = 1
for i in range (number,0,-1):
    factorial = factorial * i
print("Factorial of ",number,"is : ",factorial)
```

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

Syntax:

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

if number < 1:
    print("Number needs to be greater than 1")

elif number == 1:
    print(number, "is neither prime nor composite")

else:
    for divisor in range(2,(number//2)+1):
        if (number % divisor) == 0:
            print(number, "is a compostie number")
            break
    else:
        print(number, "is a prime number")
```

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

Answer:

Syntax:

```
number =int(input('Enter a number: '))

temp=number
rev=0

while(number>0):
   dig = number % 10
   rev = rev * 10 + dig
   number = number //10

if(temp == rev):
   print("The number is palindrome!")
else:
   print("not palindrome!")
```

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

Answer:

Syntax:

```
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 "You know the answer!"
```

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

Syntax:

```
def char_frequency(str1):
    dict = {}
    for n in str1:
        keys = dict.keys()
        if n in keys:
            dict[n] += 1
        else:
            dict[n] = 1
    return dict
```