PYTHON – WORKSHEET 1

Q1 to Q8 have only one correct answer. Choose the correct option to answer your question.

1. Which of the following operators is used to calculate remainder in a division?
   C) %
2. In python 2//3 is equal to?
   B) 0
3. In python, 6<<2 is equal to?
   C) 24
4. In python, 6&2 will give which of the following as output?
   A) 2
5. In python, 6|2 will give which of the following as output?
   D) 6
6. What does the finally keyword denotes in python?
   A) 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?
   A) It is used to raise an exception

8. Which of the following is a common use case of yield keyword in python?
   A) in defining an iterator

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?
   A) _abc
   C) abc2
10. Which of the following are the keywords in python?
    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.

```
Def fact(n)
return 1 if (n==1 or n==0) else n*fact(n-1);
num=5
print (“Factorial of”,num,”is”)
fact(num)
```

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

```
number=int (input ("Enter the number to check prime or composite: ")) #Take the number from the user.
count=0
for i in range (2, int(number/2) +1): #Loop which is used to dive the number from other number.
if(number%i==0):
count=1
break
if(count==0): #For prime number.
```

```
    print ("The number is prime number")

        else: #For composite number.

            print ("The number is composite number")
```

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

```
# function which return reverse of a string

def isPalindrome(s):
    return s == s [: -1]


# Driver code
s = "malayalam"
ans = isPalindrome(s)

if ans:
    print("Yes")
else:
    print("No")
```

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 "You know the answer!"

print(pythagoras(3,4,'x'))
  print(pythagoras(3,'x',5))
print(pythagoras('x',4,5))
print(pythagoras(3,4,5))
```

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

```
# initializing string
test_str = "GeeksforGeeks"

# using naive method to get count
# of each element in string
all_freq = {}

for i in test_str:
    if i in all_freq:
        all_freq[i] += 1
    else:
        all_freq[i] = 1

# printing result
print("Count of all characters in GeeksforGeeks is :\n "
    + str(all_freq))
```