PYTHON Worksheet Set 1

Q1. → C)

Q2. → B)

Q3. → C)

Q4. → A)

Q5. →D)

Q6. →C)

Q7. →A)

Q8. →C)

Q9. → (A) , (C)

Q10. → (A) ,(B)

Q11. → program to find factorial of given number

```
# factorial of given number

def factorial(n):

# single line to find factorial
     return 1 if (n==1 or n==0) else n * factorial(n - 1);

# Driver Code
```

```
num = 5;
print("Factorial of",num,"is",factorial(num))
```

ouput: `Factorial of 5 is 120`

Q12. → program to find whether a number is prime or Composite

```
 # Python program to check if

# given number is prime or composite

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


# If given number is greater than 1
if num > 1:

    # Iterate from 2 to n / 2
    for i in range(2, int(num/2)+1):

        # If num is divisible by any number between
        # 2 and n / 2, it is not prime
        if (num % i) == 0:
            print(num, "is composite number")
            break
    else:
        print(num, "is a prime number")

else:
    print(num, "is neither prime nor composite number")
```

output: `Enter a number: 4`

`4 is composite number`

Q13. → program to check whether a given string is palindrome or not

```
# function to check string is
# palindrome or not
def isPalindrome(str):

    # Run loop from 0 to len/2
    for i in range(0, int(len(str)/2)):
        if str[i] != str[len(str)-i-1]:
            return False
    return True

# main function
s = input("Enter the word: ")
ans = isPalindrome(s)

if (ans):
    print("Yes. Its a palindrome ")
else:
    print("No. Its not a palindrome ")
```

output:
```
Enter the word: liril

Yes. Its a palindrome
```

Q14. → program to get the third side of right angled triangle from two given sides

```
# Function to return the hypotenuse of the
# right angled triangle from two given sides
def findHypotenuse(side1, side2):
```

```
    h = (((side1 * side1) + (side2 * side2))**(1/2));
    return h;

# Driver code
side1 = 3;
side2 = 4;

print(findHypotenuse(side1, side2));
```

ouput: `5.0`

Q15. → program to print frequency of each of the characters present in a string

```
# Python3 code to demonstrate
# each character occurrence in string using
# set() + count()

# initializing string
test_str = "Happy Independence Day"

# using set() + count() to get count
# of each element in string
res = {i : test_str.count(i) for i in set(test_str)}

# printing result
print ("The count of all characters in the string 'Happy Independence Day'
 is :\n " +  str(res))
```

ouput: `The count of all characters in the string 'HappyIndependenceDay' is :`

```
 {'D': 1, 'd': 2, 'e': 4, 'c': 1, 'p': 3, ' ': 2, 'H': 1, 'y': 2, 'a': 2,
'I': 1, 'n': 3}
```