**Python Assignment**

**Answer 01.**

input\_string = input("Enter hyphen-separated sequence of words: ")

word\_list = input\_string.split("-")

word\_list.sort()

output\_string = "-".join(word\_list)

print(output\_string)

**Answer 02.**

def outer\_function():

print("This is the outer function.")

def inner\_function():

print("This is the inner function.")

inner\_function()

outer\_function()

**Answer 03:**

input\_string = input("Enter a string: ")

reversed\_string = input\_string[::-1]

print("Reversed string:", reversed\_string)

**Answer 04:**

def find\_first\_duplicate(arr):

seen = set()

for i in arr:

if i in seen:

return i

seen.add(i)

return –1

**Answer 05:**

def count\_occurrences(arr, target):

count = 0

for i in arr:

if i == target:

count += 1

return count

**Answer 06:**

import math

def sphere\_volume(radius):

volume = (4/3) \* math.pi \* radius \*\* 3

return volume

**Answer 07:**

def is\_in\_range(num, low, high):

if num >= low and num <= high:

return True

else:

return False

**Answer 08:**

def count\_upper\_lower(string):

upper\_count = 0

lower\_count = 0

for char in string:

if char.isupper():

upper\_count += 1

elif char.islower():

lower\_count += 1

print("No. of Upper case characters :", upper\_count)

print("No. of Lower case Characters :", lower\_count)

**Answer 09:**

def unique\_list(list):

unique\_list = []

for elem in list:

if elem not in unique\_list:

unique\_list.append(elem)

return unique\_list

**Answer 10:**

def multiply\_list(lst):

result = 1

for num in lst:

result \*= num

return result

**Answer 11:**

def is\_palindrome(string):

# Remove whitespace and convert to lowercase

string = string.replace(" ", "").lower()

# Check if string is equal to its reverse

return string == string[::-1]

**Answer 12:**

import string

def is\_pangram(string):

string = string.lower().replace(" ", "")

alphabet = set(string.ascii\_lowercase)

return set(string) == alphabet

**Answer 13:**

string = "Twinkle, twinkle, little star,\nHow I wonder what you are!\nUp above the world so high,\nLike a diamond in the sky.\nTwinkle, twinkle, little star,\nHow I wonder what you are"

print(string)

**Answer 14:**

filename = input("Enter filename: ")

name, extension = filename.rsplit(".", 1)

print("The extension of the file is: " + extension)

**Answer 15:**

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

nn = int(str(n) + str(n))

nnn = int(str(n) + str(n) + str(n))

result = n + nn + nnn

print("Result: ", result)

**Answer 16:**

def is\_contained(value, group):

if value in group:

return True

else:

return False

print(is\_contained([1,2,3,3,4], 5))

**Answer 17:**

def print\_even\_numbers(numbers):

for num in numbers:

if num == 237:

break

elif num % 2 == 0:

print(num)

numbers = [386, 462, 47, 418, 907, 344, 236, 375, 823, 566, 597, 978, 328, 615, 953, 345, 399, 162, 758, 219, 918, 237, 412, 566, 826, 248, 866, 950, 626, 949, 687, 217, 815, 67, 104, 58, 512, 24, 892, 894, 767, 553, 81, 379, 843, 831, 445, 742, 717, 958, 743, 527]

print\_even\_numbers(numbers)

**Answer 18:**

def check\_num(a, b):

if a == b or abs(a-b) == 5 or a+b == 5:

return True

else:

return False

print(check\_num(5, 10))

print(check\_num(8, 3))

print(check\_num(2, 7))

**Answer 19:**

name, age, address = “Prakhar Saraswat”, 20, “Mathura, Uttar Pradesh”

Print(“Name:”,name,”\nAge:”,age,”\nAddress:”,address);

**Answer 20:**

def solve(a,b):

x=(a+b)

return x\*x

a=int(input(“Enter the value A: ”))

b=int(input(“Enter the value of B:”))

print(solve(a,b))

**Answer 21:**

color\_list\_1 = set(["White", "Black", "Red"])

color\_list\_2 = set(["Red", "Green"])

result\_set = color\_list\_1.difference(color\_list\_2)

print(result\_set)