

## PYTHON TEST PAPER

- Write a Python function that accepts a string and calculate the number of uppercase letters and lowercase letters.

Sample String: 'The quick Brow Fox'

Expected Output:

No. of Upper case characters: 3

No. of Lower case Characters: 12

- Write a Python function that takes a list and returns a new list with unique elements of the first list.

Sample List: [1,2,3,3,3,3,4,5]

Unique List: [1, 2, 3, 4, 5]

- Write a Python program to reverse a string.

Sample String: "1234abcd"

Expected Output: "dcba4321"

- Write a Python to check whether a number is in a given range.
- Write a Python program to print the even numbers from a given list.

Sample List:[1, 2, 3, 4, 5, 6, 7, 8, 9]

Expected Result: [2, 4, 6, 8]

- Write a Python program that accepts a hyphen separated sequence of words as input and prints the words in a hyphen-separated sequence after sorting them alphabetically.

Sample Items: green-red-yellow-black-white

Expected Result: black-green-red-white-yellow

- Write a Python program to create and print a list where the values are square of numbers between 1 and 30 (both included).
- Write a program which will find all such numbers which are divisible by 7 but are not a multiple of 5 between 2000 and 3200 (both included).  
The numbers obtained should be printed in a comma-separated sequence on a single line.

HINT: Consider use range (#begin, #end) method

- With a given integral number  $n$ , write a program to generate a dictionary that contains  $(i, i*i)$  such that  $i$  is an integral number between 1 and  $n$  (both included). and then the program should print the dictionary.

Suppose the following input is supplied to the program:

8

Then, the output should be:

{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64}

Hints:

In case of input data being supplied to the question, it should be assumed to be a console input.

Consider use `dict()`.

- Write a program which accepts a sequence of comma-separated numbers from console and generate a list and a tuple which contains every number.

Suppose the following input is supplied to the program:

34,67,55,33,12,98

Then, the output should be:

['34', '67', '55', '33', '12', '98']

('34', '67', '55', '33', '12', '98')

Hints:

In case of input data being supplied to the question, it should be assumed to be a console input.

`tuple()` method can convert list to tuple

- Write a program that accepts a comma separated sequence of words as input and prints the words in a comma-separated sequence after sorting them alphabetically.

Suppose the following input is supplied to the program:

without,hello,bag,world

Then, the output should be:

bag,hello,without,world

Hints:

In case of input data being supplied to the question, it should be assumed to be a console input.

- Write a program that accepts a sequence of whitespace separated words as input and prints the words after removing all duplicate words and sorting them alphanumerically.

Suppose the following input is supplied to the program:

hello world and practice makes perfect and hello world again

Then, the output should be:  
again and hello makes perfect practice world

Hints:

In case of input data being supplied to the question, it should be assumed to be a console input.

We use `set()` method to remove duplicated data automatically and then use `sorted()` to sort the data.

- Write a program that accepts a sentence and calculate the number of letters and digits.

Suppose the following input is supplied to the program:

hello world! 123

Then, the output should be:

LETTERS - 10

DIGITS - 3

- Write a program to print odd number in a list. The list is input by a sequence of comma-separated numbers.

Suppose the following input is supplied to the program:

1,2,3,4,5,6,7,8,9

Then, the output should be:

1,3,5,7,9

- Python program that determines the length of string and it should take comma as a separator and it should not count the space also.

For example, here is the screen shot:

Please enter a list of strings (separated by commas):

lucifer, harry

[7,5]