1. Open a new Python interpreter(REPL) and use it to find the value of 2 + 3.

ans. Python3

>>> result = 2+3

>>> result

5

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2. Create a python script to print hello, world! four times.

ans. script.py

for i in range(4):

print("hello, world!")

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3. Write a function istrcmp to compare two strings, ignoring the case.

ans. def istrcmp(string1,string2):

string1 = input('Enter the first string.')

string2 = input('Enter the second string.')

result = string1.casefold() == string2.casefold()

if result:

print('The entered strings {0} and {1} are equal.'.format(string1,string2))

else:

print('The entered strings {0} and {1} are not equal.'.format(string1,string2))

OR

>>> istrcmp('python', 'Python')

True

>>> istrcmp('LaTeX', 'Latex')

True

>>> istrcmp('a', 'b')

False

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4. What will be output of the following program?

print (2 < 3 and 3 > 1) -----> True

print (2 < 3 or 3 > 1) -----> True

print (2 < 3 or not 3 > 1) ----> True

print (2 < 3 and not 3 > 1) -----> False

5. What will be output of the following program?

x = 4

y = 5

p = x < y or x < z

print (p)

ans. True. But red highlight as z is undefined.

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6. What will be output of the following program?

True, False = False, True

print (True, False)

print (2 < 3)

ans. Syntax Error : Can’t assign to a keyword.

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7. What happens when the following code is executed? Will it give any error? Explain the reasons.

x = 2

if x == 2:

print x

else:

print y

ans. Yes it gives syntax error stating missing parentheses at line 3.

Else it would give 2.

As x is assigned value 2, thus on using == operator, the values are compared and x is printed.

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8. What happens the following code is executed? Will it give any error? Explain the reasons.

x = 2

if x == 2:

print x

else:

x +

ans. Yes it gives syntax error stating missing parentheses at line 3.

Else it would give 2.

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9. Write a program add.py that takes 2 numbers as command line arguments and prints its sum.as follows:-

$ python add.py 3 5

8

$ python add.py 2 9

11

ans. add.py

import sys

result = sys.argv[1]+sys.argv[2]

print (result)

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10. Write a function, isharshad that determines whether a number is a Harshad

number (for number base 10).

A Harshad number “is an integer that is divisible by the sum of its digits”

-(Wikipedia)

Example: 81 ? 8 + 1 = 9 ? 81/9 = 9 ? Harshad!

>>> isharshad(81)

True

Hint: convert the number to a string

Ans. main.py

import sys

def isHarshad(num):

if \_\_name\_\_==\_\_main:

num = sys.argv[1]

total = 0

while num > 0 :

digit = num %10

total = total + digit

num = num // 10

if num % total == 0 :

print("Harshad number!")

else:

print("Not a Harshad number")

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11. 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.

Hints:

Consider use range(#begin, #end) method

Ans. mylist = []

for x in range(2000,3201):

if x%7==0 and x%5!=0 :

mylist.append(x)

print(mylist)

12. a program which can compute the factorial of a given numbers.

The results should be printed in a comma-separated sequence on a single line.

Suppose the following input is supplied to the program:

8

Then, the output should be:

40320

Hints:

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

ans. import sys

num = sys.argv[1]

for i in range(1,num):

num = num\*i

print (num)

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13. 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

Ans. import sys

mylist= []

num1 = sys.argv[1]

num2 = sys. argv[2]

#num1,num2 = 7,8

mylist.append(num1)

mylist.append(num2)

print(mylist)

print(tuple(mylist))

14. With a given integral number n, write a program to generate a dictionary that contains (i, i\*i) such that 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()

Ans. mydict = {}

for n in range(1,9):

mydict[n] = n\*n

print(mydict)

15. Write a program that calculates and prints the value according to the given formula:

Q = Square root of [(2 \* C \* D)/H]

Following are the fixed values of C and H:

C is 50. H is 30.

D is the variable whose values should be input to your program in a comma-separated sequence.

Example

Let us assume the following comma separated input sequence is given to the program:

100,150,180

The output of the program should be:

18,22,24

Hints:

If the output received is in decimal form, it should be rounded off to its nearest value (for example, if the output received is 26.0, it should be printed as 26)

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

Ans.

import math

import sys

C= 50

H =30

D=9

#D= map(float, input (“Enter a range: “).split(‘,’)

Q = math.sqrt((2 \* C \* D)/H)

print (round(Q))

16. 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.

Ans.

str1, str2 = input("Enter the strings : ").split(',')

str = 'hello'

mylist=['zbaby']

mylist.append(str)

mylist.sort()

print(mylist)

print(','.join(mylist))

#print(str(mylist).strip('[]'))

#str,str2 = map(input("Enter the names :").split(,))

17. Write a program that accepts sequence of lines as input and prints the lines after making all characters in the sentence capitalized.

Suppose the following input is supplied to the program:

Hello world

Practice makes perfect

Then, the output should be:

HELLO WORLD

PRACTICE MAKES PERFECT

Hints:

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

Ans.

import sys

str = input("Enter the strings : ").split('\n')

#str = 'hello world \n i am beautiful!'

print(str.upper())

18.