Question 1:

Please write a program using generator to print the numbers which can be divisible by 5 and

7 between 0 and n in comma separated form while n is input by console.

Example:

If the following n is given as input to the program:

100

Then, the output of the program should be:

0,35,70

A: def simple():

n=int(input())

for i in range(n):

if(i%7==0)and(i%5==0):

yield i

for i in simple():

print(i)

Question 2:

Please write a program using generator to print the even numbers between 0 and n in comma

separated form while n is input by console.

A:

# printing even no using generator

def simple():

n=int(input())

for i in range(n):

if(i%2==0):

yield i

l=[]

for i in simple():

l.append(i)

print(l)

Question 3:

The Fibonacci Sequence is computed based on the following formula:

f(n)=0 if n=0

f(n)=1 if n=1

f(n)=f(n-1)+f(n-2) if n&gt;1

Please write a program using list comprehension to print the Fibonacci Sequence in comma

separated form with a given n input by console.

Example:

If the following n is given as input to the program:

7

Then, the output of the program should be:

0,1,1,2,3,5,8,13

A:

p=0

q=1

n=int(input("Enter the number of terms: "))

i=2

List=[p,q]

while i<n:

fibo=p+q

List.append(fibo)

p=q

q=fibo

i+=1

print(List)

Question 4:

Assuming that we have some email addresses in the &quot;username@companyname.com&quot; format,

please write program to print the user name of a given email address. Both user names and

company names are composed of letters only.

Example:

If the following email address is given as input to the program:

john@google.com

Then, the output of the program should be:

john

A:

import re

email = "john@google.com"

pattern = "\w+"

ans = re.findall(pattern,email)

print(ans[0])

Question 5:

Define a class named Shape and its subclass Square. The Square class has an init function

which takes a length as argument. Both classes have a area function which can print the area

of the shape where Shape&#39;s area is 0 by default.

A:

class shape(object):

def \_\_init\_\_(self):

pass

def area(self):

return 0

class shape:

def \_\_init\_\_(self , length ) :

"""

this is a code for constructor assignment and pass the data to child calss

"""

self.length1 = length

def area(self):

return self.length1\*self.length1

class square(shape):

def \_\_init\_\_(self, l):

shape.\_\_init\_\_(self,l)

self.length2 = l

def area(self):

return self.length2\*self.length2\*self.length2

aSquare= square(4)

print(aSquare.area())