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

Ans:

**n = int(input(“enter the maximum number”))**

**def gen\_( n , p ,q ):**

**i = 1**

**while (i < n):**

**yield i\*p\*q**

**i = i + 1**

**def div\_( n ):**

**for i in gen\_(n , 5 , 7):**

**print(i)**

**if ( i + 7\*5 <= n):**

**print(",")**

**else:**

**break**

**div\_( n )**

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.

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

10

Then, the output of the program should be:

0,2,4,6,8,10

Ans:

**n = int(input(“enter the maximum number”))**

**def gen\_( n ):**

**i = 1**

**while (i < n):**

**yield i\*2**

**i = i + 1**

**def div\_( n ):**

**for i in gen\_(n ):**

**print(i)**

**if ( i + 7\*5 < n):**

**print(",")**

**else:**

**break**

**div\_(n)**

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>1

Please write a program using list comprehension to pri# Online Python compiler (interpreter) to run Python online.

# Write Python 3 code in this online editor and run it.nt 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

Question 4:

Assuming that we have some email addresses in the "[username@companyname.com](mailto:username@companyname.com)" 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](mailto:john@google.com)

Then, the output of the program should be:

john

**Ans:**

**def email\_( string ):**

**strn = ""**

**for i in string:**

**if ( i == "@"):**

**break**

**else:**

**strn = strn + i**

**return strn**

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's area is 0 by default.

**Ans:**

**class Shape:**

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

**pass**

**def area():**

**area = 0**

**print(area)**

**class Square( Shape ):**

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

**super().\_\_init\_\_( )**

**self.length = length**

**def area(self):**

**area = (self.length)\*(self.length)**

**print(area)**