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: def div\_5\_7(x):  
 for i in range(x+1):  
 if x%5==0 and x%7==0:  
 yield i  
x=int(input("enter the console input"))  
values=[]  
for i in div\_5\_7(x):  
 values.append(str(i))  
print(",".join(values))

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

def even(x):  
 for i in range(x+1):  
 if i%2==0:  
 yield i  
x=int(input("enter the console input"))  
values=[]  
print("the even nos for the console input")  
for i in even(x):  
 values.append(str(i))  
print(",".join(values))

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 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

def f(n):  
 if n == 0:  
 return 0  
 elif n == 1:  
 return 1  
 else:  
 return f(n-1)+f(n-2)  
n=int(input())  
values = [str(f(x)) for x in range(0, n+1)]  
print(",".join(values))

Then, the output of the program should be:

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

Ans:

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: ##we have some email addresses in the "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.  
#inputs  
email\_id=input("enter an email\_id in the form -username@companyname.com")  
print("the username of given email id is ")  
user\_name=''  
for i in email\_id:  
 if i!='@':  
 user\_name+=i  
 else:  
 break  
print(user\_name)

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(object):  
 def \_\_init\_\_(self):  
 pass  
  
 def area(self):  
 return 0  
  
class Square(Shape):  
 def \_\_init\_\_(self, l):  
 self.length = l  
  
 def area(self):  
 return self.length\*self.length  
n=float(input("enter the dimensions"))  
aSquare= Square(n)  
print (aSquare.area())

class sort:  
 def \_\_str\_\_(self,str):  
 self.str='the monkey took 2 to 3 bananas'  
 def sort\_fun(s):  
 print(s.str)  
sort.sort\_fun()