1. Create a list of 10 elements of four different data types like int, string, complex and float.

list=["John",23,45.5,3j,"Garry",45.9,10,52j]  
print(list))

1. Create a list of size 5 and execute the slicing structure

list=[45,"John",4500,98,38.9]  
l=list[-4:-1]  
print(l)

1. Write a program to get the sum and multiply of all the items in a given list.

a\_list = [2, 3, 4]  
  
total=sum(a\_list)  
print(total)

1. Find the largest and smallest number from a given list.

list=[45,98,100,1001]  
list.sort()  
print("smallest number",min(list))

list=[45,98,100,1001]  
 list.sort()  
 print("largest number",max(list))

5. Create a new list which contains the specified numbers after removing the even numbers from a

predefined list.

list=[45,98,100,1001,39,97]  
for i in list:  
 if (i%2==0):  
  
 print(i)

6. Create a list of elements such that it contains the squares of the first and last 5 elements between

1 and30 (both included).

list=[]  
for i in range(1,31):  
 list.append(i\*\*2)  
  
print(list[:5])  
print(list[-5:])

7. Write a program to replace the last element in a list with another list.

Sample input: [1,3,5,7,9,10], [2,4,6,8]

Expected output: [1,3,5,7,9,2,4,6,8]

list=[1,2,3,4]  
list1=[9,4,8]  
list.pop()  
print(list)  
print(list+list1)

8. Create a new dictionary by concatenating the following two dictionaries:

Sample input: a={1:10,2:20} b={3:30,4:40}

Expected output: {1:10,2:20,3:30,4:40}

a={"jojn":45, "Leela":50}  
b={"Meena":44, "Sheila":25}  
c={\*\*a,\*\*b}  
print(c)

9. Create a dictionary that contain numbers in the form(x:x\*x) where x takes all the values between 1

and n(both 1 and n included).

n=int(input("enter number,range 1 to 5:"))  
d=dict()  
for x in range(1,n+1):  
 d[x]=x\*x  
print(d)

10. Write a program which accepts a sequence of comma-separated numbers from console and

generates a list and a tuple which contains every number in the form of string.

Sample input: 34,67,55,33,12,98

Expected output: [‘34’,’67’,’55’,’33’,’12’,’98’] (‘34’,’67’,’55’,’33’,’12’,’98’)

x=input("Input comma seperated numbers:")  
list=x.split(",")  
tuple=tuple(list)  
print("list:",list)  
print("tuple:",tuple)