#1.

```
list=[]
new_list=[]
n=int(input("Enter the value of n:"))
for i in range(n):
        l=int(input())
        list.append(l)
print("List:",list)
for j in (list):
    s=j*j
    new_list.append(s)
print("new_list:",new_list)
```

#2.

```
list=[1,'abc',2.5,'xyz',4,6.6]
int_list=[]
string_list=[]
float_list=[]
for i in (list):
    if type(i)==int:
        int_list.append(i)
    elif type(i)==float:
        float_list.append(i)
    elif type(i)==str:
        string_list.append(i)
print("List containing int:",int_list)
print("List containing string:",string_list)
print("List containing float:",float_list)
```

#3.

```
n=int(input("Enter the value of n:"))
for i in range(n):
    for j in range(i+1):
        print(str(j+1),end=' ')
    print()
```

#5.

```
sum=0
n=int(input("enter a number"))
s=n
if (n>=100 and n<=999):
    while(n!=0):
        r=n%10
        sum=sum+(r*r*r)
        n=n//10
elif (n>=1000 and n<=9999):
    while(n!=0):
        r=n%10
        sum=sum+(r*r*r*r)
        n=n//10
if sum==s:
    print("narcissistic no")
else:
    print("Not")
```

#4.

```
In [1]: import numpy as np

In [2]: a=np.array([[[1,2,3],[4,5,6],[7,8,9]]])

In [3]: b=np.array([[[11,22,33],[44,55,66],[77,88,99]]])

In [4]: a.reshape(3,3)

Out[4]: array([[1, 2, 3],
               [4, 5, 6],
               [7, 8, 9]])

In [5]: b.reshape(3,3)

Out[5]: array([[11, 22, 33],
               [44, 55, 66],
               [77, 88, 99]])

In [7]: sum=np.array([[[0,0,0],[0,0,0],[0,0,0]]])

In [8]: sum.reshape(3,3)

Out[8]: array([[0, 0, 0],
               [0, 0, 0],
               [0, 0, 0]])

In [13]: for i in range (len(a)):
             for j in range (len(b[0])):
                 sum[i][j]=a[i][j]+b[i][j]
         for s in sum:
             print("sum:",s)

         sum: [[ 12  24  36]
          [ 48  60  72]
          [ 84  96 108]]
```