Aim: To arrange a list of nos. in descending order.
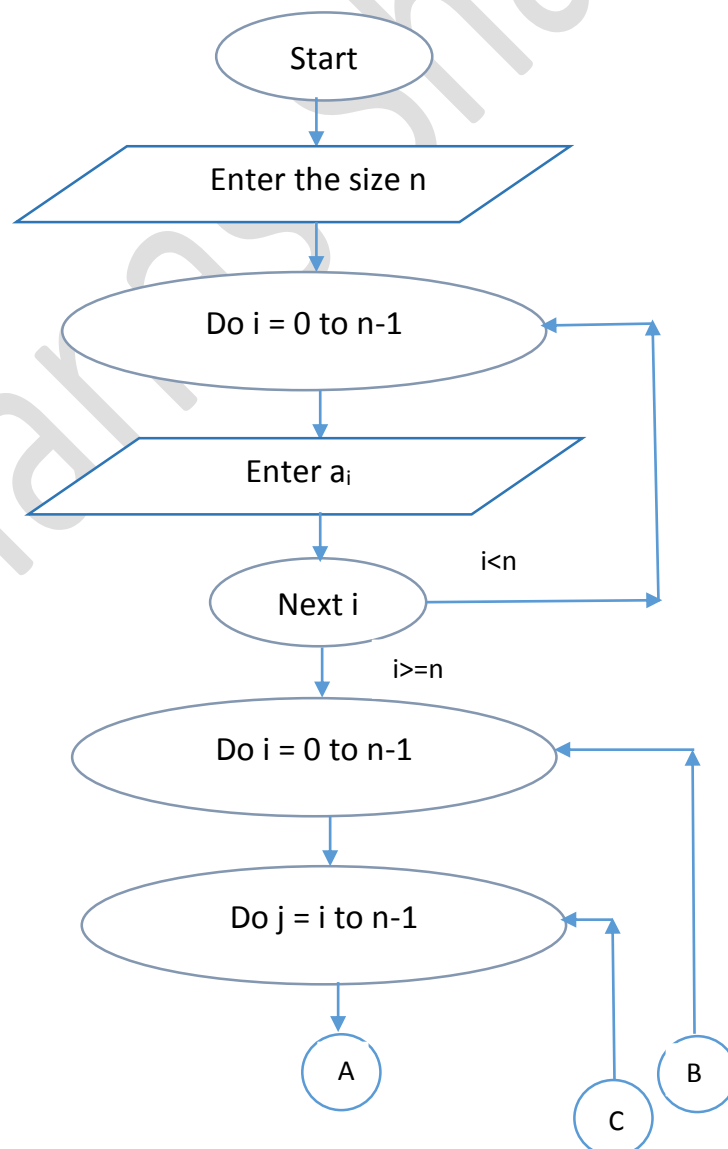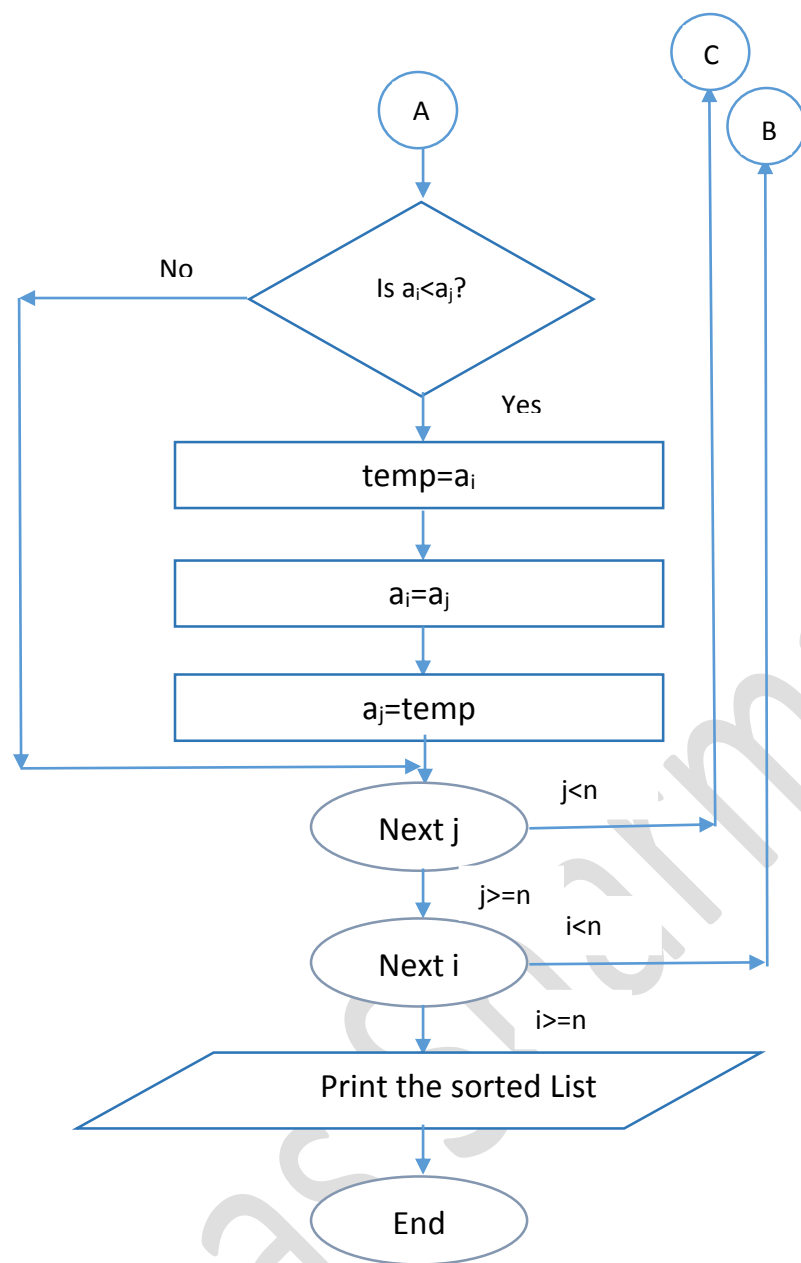
Algorithm:

1. Enter the size of the list, n.
2. Create array of size n, to store the list.
3. Enter the elements of the list:
   Begin For i=0 to n-1

           Enter a_i

   End For
4. Begin For i=0 to n-1

       Begin For j=i to n-1

           If $a_i < a_j$

                   Then swap a_i with a_j

           Else

                   Do nothing

       End For j

   End For i
5. Print the sorted list.

Flow Chart:

A

No ⟵ Is $a_i < a_j$?

Yes

temp = a_i

$a_i = a_j$

a_j = temp

Next j — j<n → C

j>=n

Next i — i<n → B

i>=n

Print the sorted List

End

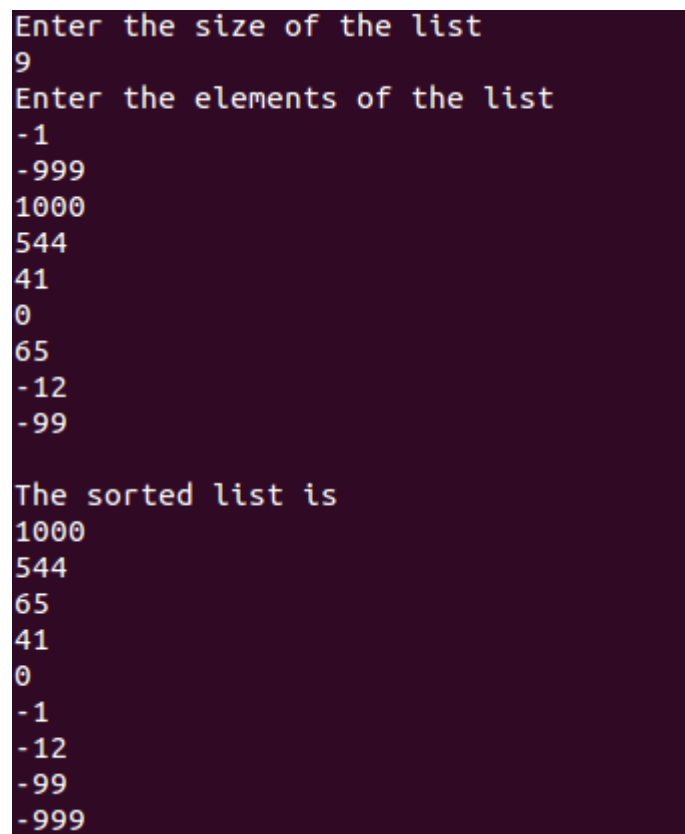**Program**:

```cpp
//sort_desc
#include <iostream>
using namespace std;
int main()
{
    int n;        //size of list
    int i,j;      //for loops for reading, swapping etc
    double temp;  //swapping
    cout<<"Enter the size of the list"<<endl;
    cin>>n;
    cout<<"Enter the elements of the list\n";
    double a[n];  //the list of no.s to be sorted
    for (i=0;i<n;i++)   //reading the elements
    {
    cin>>a[i];
    }
    for (i=0;i<n;i++)   //sorting
    {
        for (j=i;j<n;j++)
        {
            if (a[i]<a[j])
            {
```

```
            temp=a[i];
            a[i]=a[j];
            a[j]=temp;
        }
    }
}
cout<<"\nThe sorted list is \n";
    for (i=0;i<n;i++)
{
cout<<a[i]<<endl;
}
return 0;
}
```

//output attached as .jpg

Output:

```
Enter the size of the list
9
Enter the elements of the list
-1
-999
1000
544
41
0
65
-12
-99

The sorted list is
1000
544
65
41
0
-1
-12
-99
-999
```

```
Enter the size of the list
4
Enter the elements of the list
9
-9
800
0

The sorted list is
800
9
0
-9
```