**Program No. :- 1**

**AIM: Program to sort the given elements using Quick sort.**

**Source code:**

#include<stdio.h>

#include<conio.h>

int a[100];

void swap(int &a,int &b)

{

int temp;

temp=a;

a=b;

b=temp;

}

int partition(int l,int r)

{

int x=a[r];

int i=l-1;

for(int j=l;j<r;j++)

{

if(a[j]<=x)

{

i=i+1;

swap(a[i],a[j]);

}

}

swap(a[i+1],a[r]);

return i+1;

}

void quicksort(int beg,int end)

{

if(beg<end)

{

int par\_ele=partition(beg,end);

quicksort(beg,par\_ele-1);

quicksort(par\_ele+1,end);

}

}

void main()

{

clrscr();

int n,i;

printf("enter size of array");

scanf("%d",&n);

printf("enter array elements");

for(i=0;i<n;i++)

scanf("%d",&a[i]);

quicksort(0,n-1);

printf("sorted array elements are:\n");

for(i=0;i<n;i++)

printf("%d\t",a[i]);

getch();

}

**Output:**

