QUICK SORT

```
#include<stdio.h>
 void quicksort(int [],int,int);

int main()
{
  int a[20],n,i;

  printf("Enter size of the array: ");
  scanf("%d",&n);

  printf("Enter %d elements: ",n);
  for(i=0;i<n;i++)
    scanf("%d",&a[i]);

  quicksort(a,0,n-1);

  printf("Sorted elements: ");
  for(i=0;i<n;i++)
    printf(" %d",a[i]);

  return 0;
}

void quicksort(int a[10],int first,int last)
```

```
{
   int pivot,j,t,i;



    if(first<last)
 {
        pivot=first;
        i=first;
        j=last;

        while(i<j)
 {
            while(a[i] <= a[pivot])
               i++;

            while(a[j]>a[pivot])
               j--;

            if(i<j)
 {
               t=a[i];
                a[i]=a[j];
                a[j]=t;
            }
        }
```

```
t=a[pivot];
        a[pivot]=a[j];
        a[j]=t;

        quicksort(a,first,j-1);
        quicksort(a,j+1,last);

    }

}
```

OUTPUT: