```cpp
// quick sort

#include<iostream.h>
#include<conio.h>
#include<stdlib.h>
#include<timer.h>

void QUICK_SORT(int *arr,int low,int high)
{
    int pivot,temp,i,j;
    if(low<high)
    {
        pivot=arr[low];
        i=low+1;
        j=high;
        while(i<j)
        {
            while(arr[i]<pivot && i<=high)
            i++;
            while(arr[j]>pivot && j>low)
            j--;
            if(i<j)
            {
                temp=arr[i];
                arr[i]=arr[j];
                arr[j]=temp;
            }
        }
        arr[low]=arr[j];
        arr[j]=pivot;
        QUICK_SORT(arr,low,j-1);
        QUICK_SORT(arr,j+1,high);
    }
}
void main()
{
    clrscr();
    Timer T;
    int n,arr[1000];
    cout<<"\n Enter the size of array : ";
    cin>>n;
    for(int i=1;i<=n;i++)
    {
        arr[i]=random(1000);
    }
    T.start();
    QUICK_SORT(arr,1,n);
    T.stop();
    cout<<"\n After Quick Sorting Elements : ";
    for(i=1;i<=n;i++)
    {
        cout<<arr[i]<<" ";
    }
    cout<<"\n Exact time of Execution : "<<T.time();
    getch();
```

}