WEEK 5

Sort a given set of N integer elements using Quick Sort technique

CODE:

```
#include<stdio.h>

void quicksort(int number[25],int first,int last)
{
   int i, j, pivot, temp;
   if(first<last)
   {
      pivot=first;
      i=first;
      j=last;
      while(i<j)
      {
         while(number[i]<=number[pivot]&&i<last)
         i++;
         while(number[j]>number[pivot])
         j--;
         if(i<j)
         {
            temp=number[i];
            number[i]=number[j];
            number[j]=temp;
         }
      }
      temp=number[pivot];
      number[pivot]=number[j];
      number[j]=temp;
      quicksort(number,first,j-1);
      quicksort(number,j+1,last);
   }
```

```
}
int main()
{
    int i, count, number[25];
    printf("enter no of elements : ");
    scanf("%d",&count);
    printf("Enter %d elements: ", count);
    for(i=0;i<count;i++)
    scanf("%d",&number[i]);
    quicksort(number,0,count-1);
    printf("Sorted elements: ");
    for(i=0;i<count;i++)
    printf(" %d",number[i]);
    return 0;
}
```

OUTPUT: