**/\*8.Write a program to implement binary search using divide and conquer technique\*/**

#include<stdio.h>

#include<conio.h>

int binary\_search(int a[],int n,int key)

{

int low=0,high=n-1,mid;

while(low<=high)

{

mid=(low+high)/2;

if(key>a[mid])

low=mid+1;

else if(key<a[mid])

high=mid-1;

else

return mid;

}

return -1;

}

void main()

{

int pos,i,n,key,a[10];

clrscr();

printf("\n enter the number of elements\n");

scanf("%d",&n);

printf("enter the elements \n");

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

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

printf("enter the key element\n");

scanf("%d",&key);

pos=binary\_search(a,n,key);

if(pos==-1)

printf("elemet not found \n");

else

printf("element found\n");

getch();

}

**/\*OUTPUT**

enter the number of elements

5

enter the elements

2

36

5

1

5

enter the key element

1

elemet not found

enter the number of elements

5

enter the elements

3

2

6

1

5

enter the key element

4

elemet not found

**\*/**