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BRANCH- SE CMPN A

SEM- 3

19. Binary Search Non-recursive :

Code:

```
#include<stdio.h>
#include<conio.h>

int binser(int a[],int n,int x)
{
int low=0,high=n-1;
int mid=(low+high)/2;

while(low<=high)
{
if(x==a[mid])
return 1;
else if(x<a[mid])
high=mid-1;
else
low=mid+1;

mid=(low+high)/2;
}
```

```c
return 0;

}


void bubsort(int a[],int n)

{

int i,j,t;

for(i=0;i<(n-1);i++)

{

for(j=0;j<(n-1);j++)

{

if(a[j]>a[j+1])

{

t=a[j];

a[j]=a[j+1];

a[j+1]=t;

}

}

}

}


int main()

{

int a[20],n,i,x;

clrscr();

printf("enter no. of element in array\n");

scanf("%d",&n);
```

```c
printf("enter element in array\n");

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

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


printf("enter element to be searched\n");

scanf("%d",&x);


bubsort(a,n);


printf("elements in array are\n");

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

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


printf("\n");

if(binser(a,n,x))

printf("%d is present\n",x);

else

printf("%d is not present\n",x);

getch();

return 0;

}
```

Output:

```
enter no. of element in array
7
enter element in array
4
2
5
6
7
1
3
enter element to be searched
3
elements in array are
1        2        3        4        5        6        7
3 is present
_
```