**PROGRAM 3**

AIM:- (i) IMPLEMENT BUBBLE SORT

Source code:-

#include<stdio.h>

#include<conio.h>

#include<stdlib.h>

int a[7];

void main()

{

int i,j,k;

int n=7,temp;

clrscr();

printf("\n enter the 7 values as input to array");

for(k=0;k<7;k++)

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

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

{

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

{

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

{

temp=a[j];

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

a[j+1]=temp;

}

}

}

printf("\n");

for(k=0;k<7;k++)

{

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

}

getch();

}

(ii) impliment by recursive method

#include<stdio.h>

#include<stdlib.h>

#include<conio.h>

void bubble(int a[],int n)

{

if(n==1)

return;

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

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

{

int temp=a[i];

a[i]=a[i+1];

a[i+1]=temp;

}

}

bubble(a,n-1);

}

void display(int a[],int n){

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

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

printf("\n");

}

void main(){

clrscr();

int i,a[5],n=5;

printf("\n enter the elements for array");

for(i=0;i<5;i++)

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

printf("\n unsorted array");

display(a,n);

bubble(a,n);

printf("\n sorted array");

display(a,n);

getch();

}