**PROGRAM 4**

**AIM: Write a program to perform INSERTION SORT on an array.**

#include<stdio.h>

#include<conio.h>

int a[7];

main()

{

int i, j,k;

int l=0,u=6;

int key;

j=1;

clrscr();

printf("\nEnter 7 values as input to array:");

for(k=0;k<=6;k++)

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

while(j<=u)

{

key=a[j];

i=j-1;

while((i>-1) && (a[i] >key))

{

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

i=i-1;

}

a[i+1]=key;

j=j+1;

printf("\n");

for(k=0;k<=6;k++)

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

}

getch();

}

OUTPUT:

Enter 7 elements in the array: 9 8 7 6 5 4 3

8 9 7 6 5 4 3

7 8 9 6 5 4 3

6 9 8 7 5 4 3

5 6 7 8 9 4 3

4 5 6 7 8 9 3

3 4 5 6 7 8 9