**TERMWORK 4:**

#include <stdio.h>

#include <stdlib.h>

#include<time.h>

#define MAX 20

void getdata(int arr[])

{

int i;

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

{

arr[i]=rand();

}

}

void insertion\_sort(int \*x)

{

int temp,i,j;

for(i=1;i<MAX;i++)

{

temp=x[i];

j=i-1;

while(temp<x[j] && j>=0)

{

x[j+1]=x[j];

j--;

}

x[j+1]=temp;

}

}

int main(int argc,char \*argv[])

{

int a[MAX],i;

clock\_t start1=0,end1=0;

getdata(a);

printf("Elements before sorting:\n");

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

{

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

}

start1=start1+clock();

insertion\_sort(a);

end1=end1+clock();

printf("\nElements after sorting:\n");

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

{

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

}

printf("\n\n");

printf("Time taken is =%f\n",((float)(end1-start1))/CLOCKS\_PER\_SEC);

//system("PAUSE")

return 0;

}