QUESTION 1 – Write the function for Insertion Sort.

Ans –

#include <stdio.h>

void main()

{

int a[5];

int i,s;

printf("\nEnter Size Of The Array - ");

scanf("%d",&s);

printf("\nEnter Elements ");

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

{

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

}

printf("\nEntered Array Is - ");

display(a, s);

insertionSort(a, s);

printf("\nArray After Sorting - ");

display(a, s);

}

void insertionSort(int a[], int n)

{

int i, k, j;

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

{

k = a[i];

j = i - 1;

while (j >= 0 && a[j] > k)

{

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

j = j - 1;

}

a[j + 1] = k;

}

}

void display(int a[], int n)

{

int i;

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

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

printf("\n"); }

Output –

