***ASSIGNMENT-4***

***QUESTION NO.:-2***

***ALGORITHM:-***

*Sort\_list(a[],x)*

*Statement: -* this function take an integer array ‘a’ and size of the list ‘n’ as arguments.

Step 1: i← load the starting index of array which is 0.

Step 2: Read a number in ‘x’ which is present in the list.

Step 3: Repeat step 4 to 6 while (i<n) do,

Step 4: If (x=a[i]) then go to step 4,

Step 5: p←lode the value of ‘i’ then go to step 6

Step 6: i←i+1

Step 7: i← load the starting index of for loop which is 0.

Step 8: Repeat step 9 to 24 while (i<n) do,

Step 9: If (a[i]<x) and i>p) then go to step 10 to 16,

Otherwise go to step 17

Step 10: t←a[i]

Step 11: j←move the value of ‘i’.

Step 12: Repeat step 13 to 14 while (j>1) do,

Step 13: a[j]←a[j-1]

Step 14: j←j-1

Step 15: a[j]←t

Step 16: p←p+1

Step 17: If (a[i]≥x and i<p) then go to step 18 to 24,

Step 18: t←a[i]

Step 19: j←move the value of ‘i’.

Step 20: Repeat step 21 to 22 while (j<n-1) do,

Step 21: a[j]←a[i+1]

Step 22: j←j+1

Step 23: a[j]←t

Step 24: p←p-1

Step 25: END

*Main( )*

Step 1: Input the size of the array in ‘n’.

Step 2: i←load the starting index of for loop which is 0.

Step 3: Input a value in ‘a[i]’.

Step 4: Sort\_list(a,n) // call the Sort\_list function

Step 5: i← load the starting index of for loop which is 0.

Step 6: Display the value of ‘a[i]’

Step 7: END