Algorithm

Step 1: Start

Step 2: Read a[10], n, i, j, temp

Step 3: for(i=0; i<n; i++)

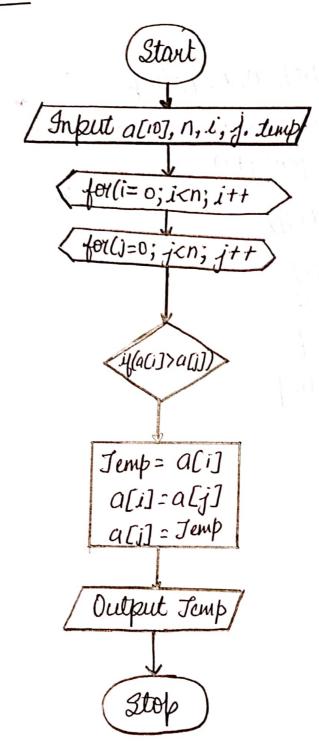for(j=0; j<n; j++)

Step 4: if(a[i]>a[j])

temp = a[i]

a[i]=a[j]

a[j]= temp

Step 5: Output temp

Step 6: Stop.

Flow chart :

```
                    ┌─────────┐
                    │  Start  │
                    └─────────┘
                         │
                         ▼
          ╱────────────────────────────╲
          │ Input a[10], n, i, j. temp  │
          ╲────────────────────────────╱
                         │
                         ▼
          ◁────────────────────────────▷
          │   for(i= 0; i<n; i++        │
          ◁────────────────────────────▷
                         │
                         ▼
          ◁────────────────────────────▷
          │   for(j)=0; j<n; j++        │
          ◁────────────────────────────▷
                         │
                         ▼
                    ◇─────────◇
                   ╱  if(a[i]>  ╲
                   ╲  a[j])      ╱
                    ◇─────────◇
                         │
                         ▼
                 ┌────────────────┐
                 │  Temp = a[i]   │
                 │  a[i] = a[j]   │
                 │  a[j] = Temp   │
                 └────────────────┘
                         │
                         ▼
                ╱────────────────╲
                │  Output Temp    │
                ╲────────────────╱
                         │
                         ▼
                    ┌─────────┐
                    │  Stop   │
                    └─────────┘
```

```
 1   #include<stdio.h>
 2   int main()
 3 ▾ {
 4         int a[10],n,i,j,temp;
 5         printf("Enter the size of the array:");
 6         scanf("%d\n", &n);
 7         printf("%d", n);
 8         printf("\n Enter the elements\n");
 9         for(i=0;i<n;i++)
10 ▾      {
11             scanf("%d\n", &a[i]);
12             printf("%d\t", a[i]);
13         }
14         for(i=0;i<n;i++)
15 ▾      {
16             for(j=0;j<n;j++)
17 ▾          {
18                 if(a[i]>a[j])
19 ▾              {
20                     temp=a[i];
21                     a[i]=a[j];
22                     a[j]=temp;
23                 }
```

0:0

Open File

Custom Input

```
6
41
25
37
29
57
16
```

Status Successfully executed   Date 2020-06-07 10:08:07   Time 0 sec   Me

Input

```
6
41
25
37
29
57
16
```

Output

```
Enter the size of the array:6
 Enter the elements
41   25   37   29   57   16
 Second smallest element in the array is :25
```