ECS-102 LAB TASK 9 – Sorting in Arrays

1. Write a program to sort the following numbers : (89, 20, 31, 56, 20, 64, 48) using Selection Sort. Show the each step of the sorting in the code such that output screen should print arrays as shown below. (Use Functions)

   step1: 20, 89, 31, 56, 20, 64, 48

   step2 : 20, 20, 31, 56, 89, 64, 48

   step3 : 20, 20, 31, 56, 89, 64, 48

   step4 : 20, 20, 31, 48, 89, 64, 56

   step5 : 20, 20, 31, 48, 56, 64, 89

   step6 : 20, 20, 31, 48, 56, 64, 89

   step7 : 20, 20, 31, 48, 56, 64, 89

2. Write a program to sort the numbers in the array given below using

   a) Bubble sort.
   b) Insertion sort.

   Compare the number of steps required in sorting the following array using Bubble Sort and Insertion Sort. Show each step in both sorting in the output screen. (Use Functions)

89	20	21	56

3. Given two arrays A and B of size M and N respectively. Write a program to merge A and B in an array C. Show the each step of the sorting in the output screen. (Use Function)

   A is [1, 2, 3, 6, 7]

   B is [2, 3, 5, 6, 8, 9, 10]

   where C must be [1, 2, 3, 5, 6, 7, 8, 9, 10]