PSG COLLEGE OF TECHNOLOGY
DEPARTMENT OF COMPUTER APPLICATIONS
I MCA
23MX17 DATA STRUCTURES LABORATORY

Problem Sheet on Arrays

Date: 19-08-2025

1) Write a program to accept the integer values and display the second largest value in an array.
2) Write a program to sort the list of numbers in an ascending and descending order.
3) Write a program to search for a specified number in an array and display with its position.
4) Write a program to find the occurrence of positive, negative, even and odd elements for a given array.
5) In a gymnastics or diving competition, a contestant's score is calculated by dropping the lowest and highest scores and then adding the remaining scores. Write a program that allows the user to enter eight judges' scores and then outputs the point received by the contestant. A judge awards point between 1 and 10, with 1 being the lowest and 10 being the highest. For example, if the scores are: 9.2, 9.3, 9.0, 9.9, 9.5, 9.5, 9.6 and 9.8, then the contestant receives a total of 56.9 points.

   Here is the sample output.

   Enter 8 scores out of ten points :

   9.1 9.0 8.9 8.8 9.4 7.9 8.6 9.8

   Your lowest score is 7.90

   Your maximum score is 9.80

   Your total point is 53.80

   Your average point is 8.97

6) Write a program that accepts an array and a key value. Rotate the array element by 'key' times.

   Example:

   Input: arr[]= [1, 2, 3, 4, 5, 6]

   key=2

   Output : [3, 4, 5, 6, 1, 2]