National University of Computer and Emerging Sciences



**Laboratory Manual**

***(Introduction to Computing)***

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| Section | A |
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**Lab Manual (10)**

**Functions and Arrays**

**Problem1:**   
Suppose A, B, C are arrays of integers of size M, N, and M + N respectively. The numbers in array A appear in ascending order while the numbers in array B appear in descending order. Write a user defined function in C++ to produce third array C by merging arrays A and B in ascending order. Use A, B and C as arguments in the function.

**Problem 2:**

How to find all pairs on integer array whose sum is equal to given number?

You have given an integer array and a number, you need to write a program to find all elements in array whose sum is equal to the given number. Remember, array may contain both positive and negative numbers, so your solution should consider that.

**Problem 3:**

Given an array of positive and negative numbers, arrange them in an alternate fashion such that every positive number is followed by negative and vice-versa maintaining the order of appearance.

Number of positive and negative numbers need not be equal. If there are more positive numbers they appear at the end of the array. If there are more negative numbers, they too appear in the end of the array.

Example:

Input: {1, 2, 3, -4, -1, 4}

Output: {-4, 1, -1, 2, 3, 4}

Input: {-5, -2, 5, 2, 4, 7, 1, 8, 0, -8}

Output: {-5, 5, -2, 2, -8, 4, 7, 1, 8, 0}