

Assignment 1: CSE 115

Theory assignment on functions (10%). Must be handwritten. Due: 14/08/2021, Saturday midnight. This is a hard deadline, you cannot submit after the deadline. However you are welcome to submit at any time before the deadline.

- 1) Using block diagrams explain how two functions communicate with each other. 6 points

- 2) What is the difference between argument and parameter of a function? 4 points

- 3) Write down a function that will take an array, its size and an integer M as parameters and return the summation of integers that are greater than M. Then write a main function that asks the user to enter an integer X and N integers. Store N integers in an array and use the above function to compute the summation of the integers that are greater than X and display the result. 10 points

- 4) Write down a program that asks the user to type N integers of an array and an integer V. The program then searches if V exists in the array and removes the first occurrence of V, shifting each following element left and adding a zero at the last element of the array using a user defined function with the following prototype: 10 points

`void removeFromArray (int A[], int N, int V);`

In the function, also display the modified array.

- 5) Write down a function that will take an integer N as parameter and will determine whether the number N is a perfect number or not. Return 1 from the function if N is a perfect number, and 0 otherwise. In your main function take an integer as input and using the function determine whether the number is a perfect number or not. Display "YES" if it is a perfect number and "NO" otherwise. 10 points