



## North South University

Course Title: CSE115, Final Exam,

Full Points: 40, Duration: 1Hr 10minutes (with upload)

(10 points)

1a) Declare an integer array of size 5 and take input from the users. All elements should be unique.

1b) Find the maximum element in the array and then check if it is divisible by all other elements in the array. If the maximum is divisible by all other elements, then display “Good Maximum” else display “Bad Maximum”

**Sample Array inputs: 1      100      5      50      20**

**Output: 100, Good Maximum.**

(5 points)

2) Write a function (using a pointer parameter) that reverses the elements of a given array. Use the pointer parameter to solve your problem.

**Input array elements: 10 20 30 40 50 60 70 80 90 100**

**Output: Reversed array: 100 90 80 70 60 50 40 30 20 10**

(10 points)

3) Write a function **void Star\_fill (char str1[])** that will fill up a variable-length string with stars to its maximum size. For example, consider char str [10]. User input is “CSE115”. **Star\_fill()** function would add three stars (one of which would overwrite the null character) and finish the string with the null character. Be sure your function would work if no star fill were necessary.

**Input: CSE115**

**Output: CSE115\*\*\***

(2+3+5=10points)

4) You will create a record system for a library. Now write a full code that will contain all the following measures.

a) **Design** a structure **book** with the following members: **title, author, b\_id**. Suppose the system can hold a maximum of **5** books. Create an array of structures to hold book information.

b) **Take user input to fill in data** and display the titles of all books currently in the system.

c) Now **search** the record system for a book, given the title of the book. If the book is not found, print an error message to inform the user otherwise print all information (**title, author, b\_id**) about the book.

(5 points)

5) Create a text file to store some integer values in it using the **fprintf ()** function.

Next read the numbers from the file, find the sum of odd numbers and even numbers and the store the sumodd and sumeven in two separate files.

**Best of Luck**