



**EASTERN UNIVERSITY, SRI LANKA**  
**DEPARTMENT OF MATHEMATICS**  
**FIRST EXAMINATION IN SCIENCE (2011/2012)**  
**FIRST SEMESTER (Dec/Jan,2013/2014)**  
**CS152 - PRACTICAL WORK ON CS 103**

ANSWER ALL QUESTIONS

TIME: TWO HOURS

1)

a) Write a C++ program to print the following outputs:

a.                   \*

                      \* \*  
                      \* \* \*  
                      \* \* \* \*  
                      \* \* \* \* \*

b.                   1  
                      222  
                      33333  
                      4444444  
                      555555555

b) Write a C++ program to find the largest element of an array.

2)

a) Write a C++ program to find the first n Fibonacci numbers?

b) Declare a structure to store a book details consisting of the following fields:

BookTitle;

No\_ofCopies;

OriginalPrize;

Discount.

Write a C++ program to do the following:

- I. Read the necessary data (BookTitle, No\_ofCopies, OriginalPrize and Discount) from the keyboard for 5 different Books.

II. Write a function to calculate the TotalCost of specific book using the equation given below.

$$\text{TotalCost} = \text{OriginalPrice} * (100 - \text{Discount}) * \text{No\_ofCopies}.$$

III. Display the BookTitle, No\_ofCopies, OriginalPrize with TotalCost.