



EASTERN UNIVERSITY, SRI LANKA
EXTERNAL DEGREE
SECOND EXAMINATION IN SCIENCE -2009/2010 (2012)
FIRST SEMESTER (May /June, 2012)
EXTCS 251 – PRACTICAL WORK ON EXTCS 201

Answer all questions

Time: Two hours

- A) Write a C++ program for the following Stack operations which:
- Create a stack;
 - Check empty stack;
 - Return top element of the stack;
 - Insert an element in to a stack;
 - Remove an element from a stack.

The equivalent digits numbers X and Y are given below, write a program to find out the sum of these two numbers using **stack** data structure.

And also find out the result of the addition that represents an array Z like this,

$$\begin{array}{r} X = 2\ 5\ 6 \\ Y = \underline{5\ 8\ 7} \\ \quad 8\ 4\ 3 \\ Z = [8, 4, 3] \end{array}$$

- B) Given are two one-dimensional arrays A and B which are not sorted.
Write a program in C++ to sort them in to a single array C that contains every item from arrays A and B in **ascending** order.

For example:

Array A= {26, 82, 18, 36, 1};

Array B= {14, 32, 20, 30, 5}.

Output:

Array C= {1, 5, 14, 18, 20, 26, 30, 32, 36, 82}.