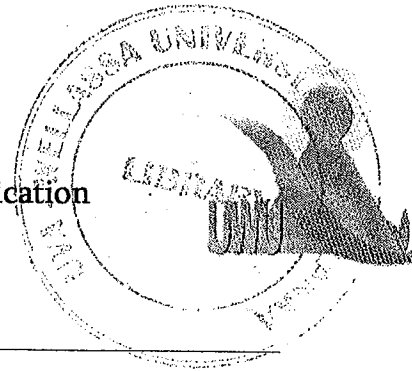


UVA WELLASSA UNIVERSITY, Sri Lanka

End Semester Examination –June/July 2010

EMG 323-2 Computer Programming and Application

Time Allowed: One and half hour (1 ½)



Total 03 Questions.

Answer all questions. Upload your answers to the Course Management System (CMS).

- 1) Write a function in C++ to find the factorial of a given number. 30 Marks  
 Write a program to input a positive integer, find the factorial of that and then display the factorial using the above function.  
 Factorial.5=5\*4\*3\*2\*1
  
- 2) You have given a database called *Student* in the Course Management System. 30 Marks  
 StName(Student's name), Degree, Year and University are the fields in the *Student* database. Create a suitable user interface and code to display the student's details using the above database. You should display the Student's Name, Degree Program, Year and the University. Insert a *Next* and a *Previous* buttons to the interface you created. When the user clicks on the *Next* button, information of the next student should be displayed, and when the user click on the *Previous* button, information of the previous student should be displayed.
  
- 3) Samarasekara Bookshop requires a program to calculate the monthly sales of books. 40 Marks  
 The books are categorized as Chemistry, Physics, Mathematics, Management and Agriculture. Create a user interface to display the categories using radio buttons, and a button named *Calculate*. Add a menu bar to the interface with the following menu items.

File	Edit	Help
Save	Font	<u>S</u> ummary (Alt+S)
<u>E</u> xit (Alt+E)	Color	About

Write the code to perform the following tasks.

- I. When the user select a category, allow the user to input the sales amount and unit price.
- II. When the user clicks the *Calculate* button, your program should calculate and upload the total sales amount of the selected category.
- III. When the user selects *Font* and *Color* menu items user should be able to change the font and color formatting.
- IV. Include access keys to Exit (Alt+E) and summary (Alt+S) menu items.
- V. When the *Summary* menu is selected it should display the monthly sales of each category.
- VI. When the *Exit* menu item is selected it should close the form.