UNIVERSITY OF LAGOS

DEPARTMENT OF ELECTRICAL/ELECTRONICS ENGINNERING

B.Sc. Electrical/Electronics and Computer Engineering Degree Examinations FIRST SEMESTER 2012/2013 SESSION

EEE 311: COMPUTER PROGRAMMING LANGUAGES TIME: TWO HOURS

SECTION B [100 marks]

Question One [50 marks]

Write a complete C++ program that asks the user to enter a character string. Send the string to a function called Reverselt. This function will fill a second string so that the original string is reversed. Limit the size of the strings to fifty characters. The last character in the original string (before the null) should be the first character of the second string. Incorporate a loop so that the user can continue to enter strings until he or she chooses to stop.

Question Two [50 marks]

Write a structure tag and short main program that sets up a struct for a baseball pitcher that contains his name, earned run average (ERA), innings pitched and strikeout percentage. In the program, declare one pitcher variable and pass its address to a function called Smokin'. This function fills the pitcher variable with the following information:

Name: Smokin' Joe Green ERA: 1.2

Innings pitched: 55 Strikeout percentage: 0.25

Once the data is in the structure, write the pitcher information to the screen.

Question Three [50 marks]

Write a program that sets up a Date structure (integer for month, day and year) and a Person structure (name and birthday – using the Date struct). The program should have a function (FillPerson) that asks the user to enter all the names and birthday information. The prototype for this function is:

Person FillPerson();

You should also have a function called WritePerson that writes out all the person information using the name of the month (as opposed to the integer value) for the birthday month. The prototype for this function is:

void WritePerson(Person);

your program should have two Person variables. It should fill these two variables and then call a function called WholsOlder, which is sent both Person variables. The function determines who is older and writes the age status to the screen. (Note: WholsOlder should call WritePerson twice.)