First:_____   Last:_____

Scoring

Your grade will be based both on the numerical results returned by your program and on your programming style. In particular, write code that is easy to understand, easy to debug, easy to change. Please employ good labels, pretty structure, and good comments.

Program style, rtf file printed by TA		
labels		
pretty structure		
comments, name on RTF		
Performance score, Run by TA at the checkout	S=	
total		

I promise to follow these rules

This is a closed book exam. You must develop the software solution using the **TExaS** simulator. You have about 40 minutes to solve this problem, so allocate your time accordingly. You are allowed to bring only some pencils (no books, laptops, cell phones, hats, disks, CDs, or notes). You will have to leave other materials up front. Each person works alone (no groups). You have full access to **TExaS**, with all the **TExaS** examples and the **TExaS** help. You may use the Window's calculator. You will sit in front of a computer and edit/assemble/run/debug the programming assignment. You do not have access to the Freescale manuals, just the help system in **TExaS**. You may not take this paper, scratch paper, or rough drafts out of the room. You may not access your network drive or the Internet. You are not allowed to discuss this exam with other EE319K students until Friday.

The following activities occurring during the exam will be considered scholastic dishonesty:
   0) reading, writing or viewing any file outside of test files on the desktop
   1) running any program from the PC other than **TExaS** or the Windows calculator,
   2) communicating to other students by any means about this exam until Friday,
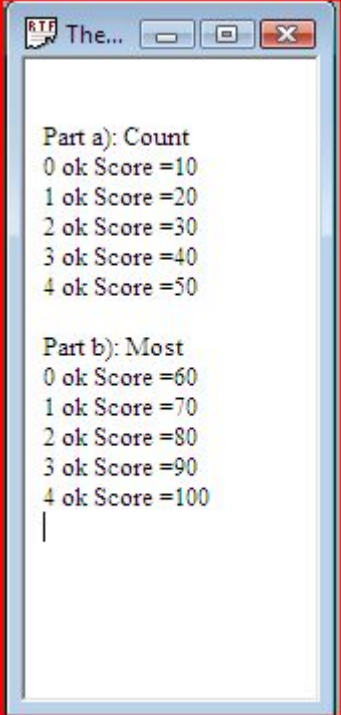   3) using material/equipment other than a pen/pencil.
Students caught cheating will be turned to the Dean of Students.

Signed: _____   March 2012

Procedure

First, you will log onto the computer and download files from the web as instructed by the TAs. Please put the three starter files called **Exam2a.rtf   Exam2a.uc Exam2a.io** **ON THE DESKTOP**. You are not allowed to archive this exam. Within **TExaS** open these files, *put your name on the first comment line*. Before writing any code, please assemble and run the system. You should get output like this figure on the right (but a much lower score). Each time you assemble, **TExaS** will create a backup version of your program. If you wish to roll back to a previous version, simply open one of the backup versions. If you do roll back, I suggest you perform a **SaveAs**, so a new sequence of backup files will be started.

My main program will call each of your subroutines multiple times and will give your solution a performance score of 0 to 100. *You should not modify my main program or my example data.* When you have written your subroutines, you should run my main program, which will output the results to the **TheCRT.rtf** window. You are allowed to create additional global variables. After you are finished, raise you hand and wait for a TA. The TA will direct you on how to complete the submission formalities. The TA will run your program in front of you and record your performance score on your exam cover sheet. The scoring page will not be returned to you. The submission guidelines are at the end of the exam handout.

Part a) The first assembly language subroutine
Part b) The second assembly language subroutine
Part c) There may be a third subroutine

<u>**Important Notes**</u>:
- Your subroutines should work for all cases shown in the starter file.
- Handle the simple cases first and the special cases last.

<u>**Submission Guidelines**</u>**:**
Send an email to the address given by TAs with the following:
- **Subject**: Exam2a Lastname, Firstname
- **Body**: A paste of your TheCRT.rtf score window (Ctrl-a to select => Ctrl-c to copy => Ctrl-v to paste)
- **Attachment**: Your Exam2a.rtf file