Name (pinyin and Hanzi):

Student ID:

- Be sure that your exam booklet has NINE pages.
- Write your name and Student ID on the first page.
- Do not tear the exam apart other than to remove the last page.
- This is a closed book exam. You may not use a calculator.
- Challenge problems are marked with ***.
- You are allowed THREE handwritten A4 sheets of notes (both sides).
- The last page of the exam is an LC-3 reference sheet.
- Absolutely no interaction between students is allowed.
- Show all work, and clearly indicate any assumptions that you make.
- Don’t panic, and good luck!

Problem 1  22 points _______________________________ 
Problem 2  15 points _______________________________ 
Problem 3  20 points _______________________________ 
Problem 4  12 points _______________________________ 
Problem 5  16 points _______________________________ 
Problem 6  15 points _______________________________ 

Total  100 points _______________________________