Final Exam CSCI 255 Spring 2002
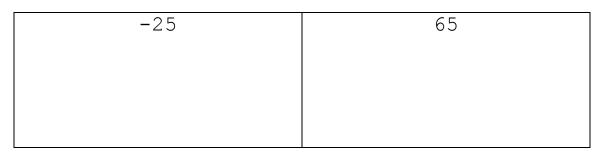# Closed Book Section
13 May 2002

Name: _____

This exam has a closed book and an open book section. Until you have turned in the closed book section, you are not allowed to use any resource materials: books, notes, or calculators.

Be sure to show your work in order to get full credit for the problem. When possible place your answers in the provided boxes. There are 6 questions for a total of 44 points on the two-page closed book section of the quiz.

Problem 1 (6 points)
Convert the following two numbers from decimal to 8-bit twos-complement representation.

-25	65

Problem 2 (6 points)
Convert the following two 8-bit twos-complement numbers into decimal numbers.

11111010	00001011

Problem 3 (6 points)
Draw the symbols for the NOT, AND, and OR gates below

NOT	AND	OR

Problem 4 (5 points)
What LC/2 instruction (in LC/2 assembler) is used for the following actions?

Setting R4 to 0	Copying R4 to R2

Problem 5 (10 points):
What are the significant differences between the following three pairs of terms?
Do not simply state a definition for each term. Contrast the paired terms.

'0' *vs.* 0 in C	
Subroutine *vs.* Trap	
Data *vs.* Status Device Register	

Problem 6 (10 points):
Choose **four** of the following six terms or names and state how we have used your chosen four in CSCI 255. Write your four choices in the left column and your related statements in the right column.

8M×16	lc2sim	precedence
R-S Latch	Turing	Von Neumann