Due 1:30PM, Friday, September 21st, 2007

Name	CSE Login	

Instructions Follow instructions carefully, failure to do so may result in points being deducted. Clearly label each problem and submit the answers in order. Staple this cover page to the front of your assignment for easier grading. Late submissions will not be accepted. Be sure to show sufficient work to justify your answer(s). If you are asked to prove something, you must give as formal, rigorous, and complete proof as possible. You are to work individually, and all work should be your own. The CSE academic dishonesty policy is in effect (see http://www.cse.unl.edu/undergrads/academic\_integrity.php).

Problem	Page	Points	Score
A	-	4	
1.1:14	17	5	
1.1:24	18	4	
1.1:28acef	18	5	
1.2:10ad	28	5	
1.2:20	29	3	
1.2:32	29	3	
1.2:60	30	4	
1.3.14	47	5	
1.3:16	47	5	
1.3:18abc	47	4	
1.4.2	58	5	
1.4.4	58	4	
1.4.24	61	5	
1.4.40	62	4	
1.4.46	62	4	
1.4.50	62	6	
Program			
Typesetting		25	
Total		100	

## **Additional Instructions**

- You must show all logical equivalences without using truth tables.
- Typesetting the homework in LATEX is worth 25 points.

**Problem A** Suppose that  $\neg p \rightarrow \neg q$  is known to be false. Give the truth values for

- (a)  $p \wedge q$
- (b)  $p \vee q$
- (c)  $q \rightarrow p$