University of Toronto, St. George Campus
Department of Computer Science

CSC 165H1 F
Fall 2007

Quiz #3

Name: ________________________ Marker's name: ________________________

Instructions to student: Using pen, write your answers in the space provided and leave the right column blank.
Instructions to marker: Write only in the right column, and clearly indicate the mark you believe is deserved in each category. Award 1 full mark if answer is fundamentally correct, 0 marks otherwise (no $1/2$ marks).

Consider the following symbolic statement:

For marking only:

(S0) $(A \Rightarrow B) \Rightarrow C$

a. Which of the following statements are equivalent to (S0)? Justify your choices.

3 marks:
1 for each sentence correctly justified

(S1) $(A \vee B) \Rightarrow C$

(S2) $(\neg C) \Rightarrow (A \wedge \neg B)$

(S3) $\neg(A \Rightarrow B) \vee C$

b. Write a symbolic statement that is equivalent to (S0) without using $\Rightarrow$ or $\Leftrightarrow$ (that is, only using the logical symbols $\neg$, $\vee$ and $\wedge$). Justify briefly.

2 marks:
1 for correctness
1 for equivalence argument

Total: ________