

DISCRETE MATH

QUIZ 2

Name: _____

You have 10 minutes for this exam. If you have a question, raise your hand and remain seated. In order to receive full credit your answer must be **complete**, **legible** and **correct**.

1.

(a) Define *proposition*.

A *proposition* is a declarative sentence.

(b) Define *logical equivalence* of propositions.

Two propositions are *logically equivalent* if they have the same truth table.

2. Compute the truth table for $((\neg p) \wedge (q \rightarrow r)) \leftrightarrow ((p \vee q) \rightarrow (\neg r))$:

p	q	r	$\neg p$	\wedge	$q \rightarrow r$	\leftrightarrow	$p \vee q$	\rightarrow	$\neg r$
T	T	T	F	F	T	T	T	F	F
T	T	F	F	F	F	F	T	T	T
T	F	T	F	F	T	T	T	F	F
T	F	F	F	F	T	F	T	T	T
F	T	T	T	T	T	F	T	F	F
F	T	F	T	F	F	F	T	T	T
F	F	T	T	T	T	T	F	T	F
F	F	F	T	T	T	T	F	T	T