ECE 479/579
Spring 2024

Homework #3
Due: April 30, 2024 (11pm, via D24)

Please consider the logical equivalence ⇔, representing the if and only if statement (sometimes referred to as iff. (Please look up the truth table for it; you may also recall the XNOR gate from your digital circuits classes).

Now, examine the following statement:

A pilot who is certified can fly commercial aviation if they are less than 65 years old, but otherwise cannot fly commercial.

Which of the following are correct representations of the above assertion? Please answer YES OR NO, and justify your answer.

C – certified
F - fly
LT65 – less than 65
~ is a symbol for NOT

a. (C ^ F) ⇔ LT65
b. C => (F ⇔ LT65)
c. C => ((LT65 => F) v ~F)

NO HANDWRITTEN materials will be accepted.