## ECE 130 HW\#1

1. Consider the following switching circuit:


A and B switch an input voltage source to an element labeled "C Controller." This element closes $\mathbf{C}$ when the input voltage is high and opens $\mathbf{C}$ when the input voltage is low.
A. Complete a truth table for the above circuit with inputs $\mathbf{A}$ and $\mathbf{B}$ and with an output $\mathbf{L}$, which is the light.
B. Write a logical expression in Boolean algebra that relates the output $\mathbf{L}$ to the two inputs.

