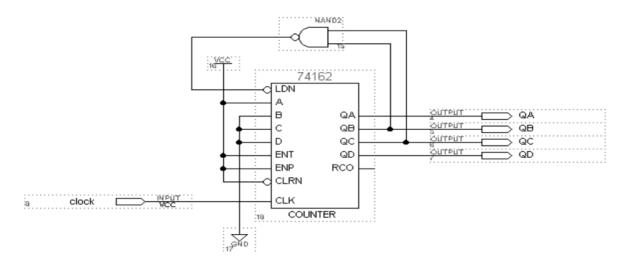
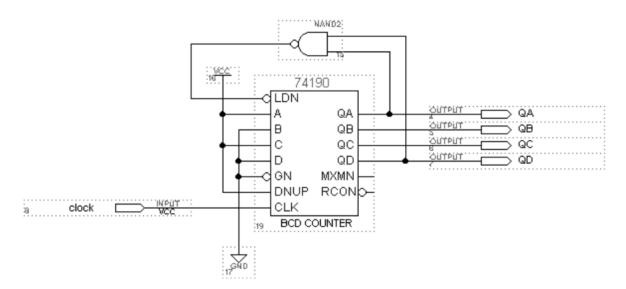
## Homework 3

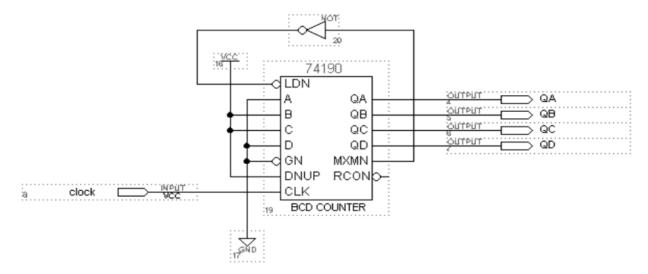
- 1. Draw a timing diagram for a 4-bit up counter.
- 2. Determine the count sequence for the following schematic:



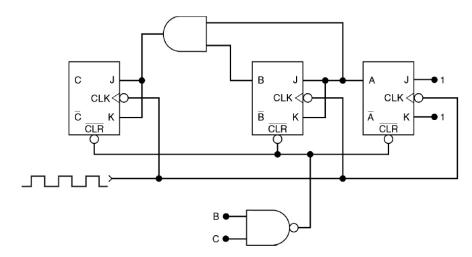
3. Determine the count sequence for the following schematic:



4. Determine the count sequence for the following schematic:



- 5. Draw a schematic using a 74193 that counts from 0xE to 0x8.
- 6. Consider the following schematic:



- a) If the clock frequency is 11.0592 MHz, what is the frequency of A?
- b) Draw the state diagram.
- c) If the clock frequency is 11.0592 MHz, what is the frequency of C?
- 7. Describe what it means for a flip-flop to have a negative hold time.