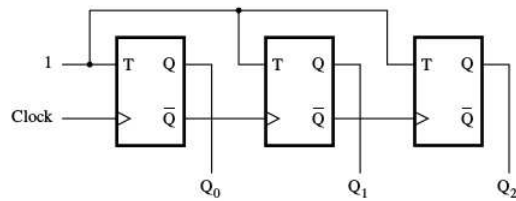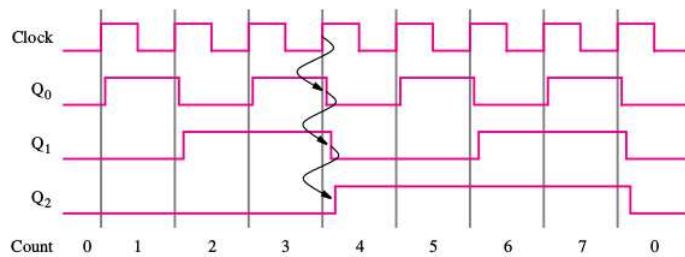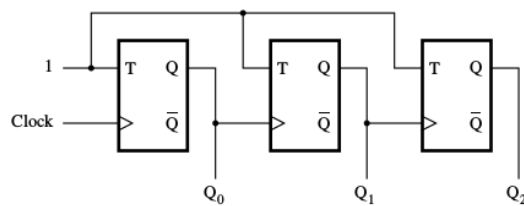**EE 231 - Homework 8**

**Due Oct. 17 2018**

1. Combine the functionality of the circuits in the figures below to form a counter that can count either up or down. Such a counter is called an up/down-counter.
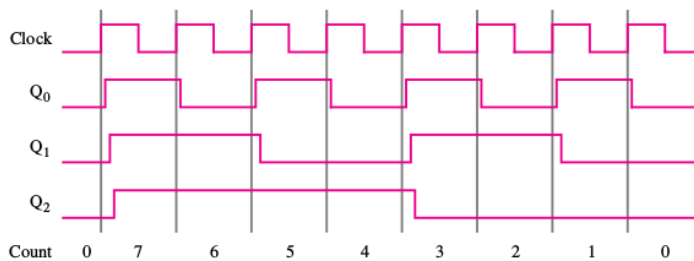


(a) Circuit



(b) Timing diagram



(a) Circuit



(b) Timing diagram

2. Write Verilog code, simulate and obtain the timing diagram for a two digit BCD counter.