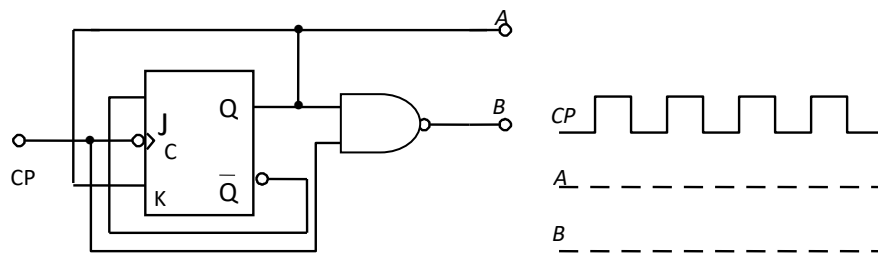


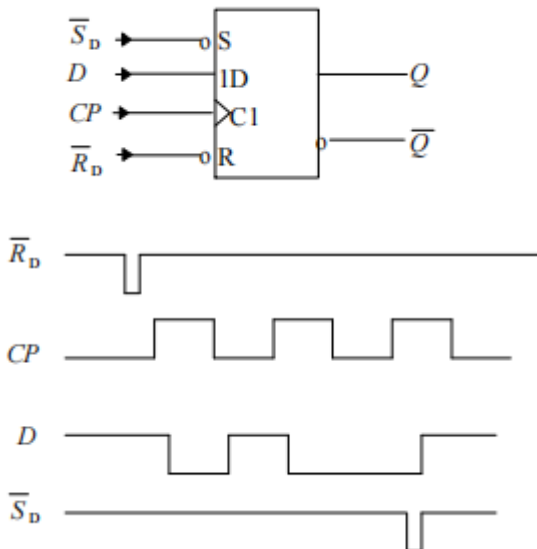
Name: \_\_\_\_\_ Student number: \_\_\_\_\_ SCORE: \_\_\_\_\_

## Homework4

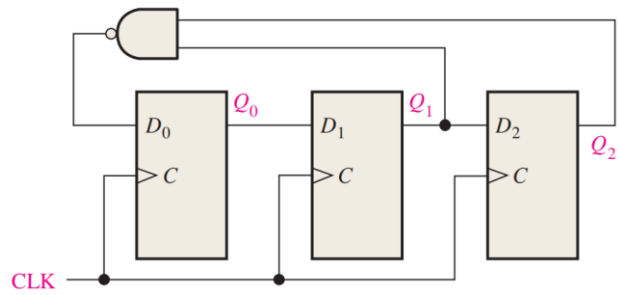
1. The JK flip-flop is negative edge triggered. Assuming the initial state of A is 0 at  $t=0$ , give the expressions of J、K、A、B respectively, and sketch the waveforms of A and B. (10 points)



2. Sketch the waveform of Q.



3. Determine the state sequence of the counter



4. Design a counter to produce the following sequences. Use JK flip-flops and other basic gates.

100,001,011,111,110,101,010,100... (The circuit diagram is unnecessary.)