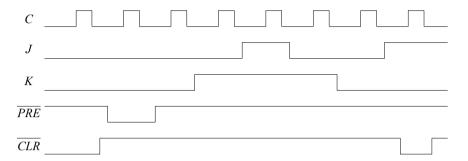
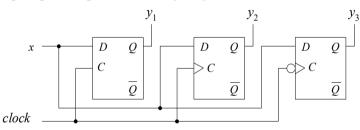
## EE 2000 Logic Circuit Design Semester A 2024/25

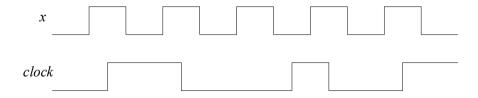
## Tutorial 7

1. The waveforms are applied to the inputs of an SN7476 *JK* flip-flop (negative-edge triggered). Complete the timing diagram by drawing the waveforms of flip-flop output *Q*.

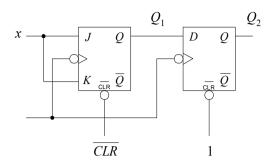


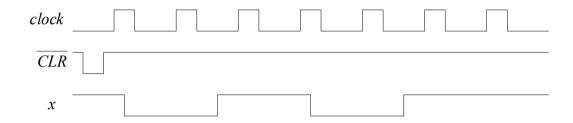
2. The circuit contains a D latch, a positive-edge-triggered D flip-flop, and a negative edge-triggered D flip-flop. Complete the timing diagram for the waveform of signals  $y_1$ ,  $y_2$  and  $y_3$ .





3. The circuit contains a negative edge—triggered JK flip-flop and a D flip-flop. Complete the timing diagram by drawing the waveforms of signals  $Q_1$  and  $Q_2$ .





4. Complete the timing diagram by drawing the waveforms of signals  $q_1$  and  $q_2$ .

