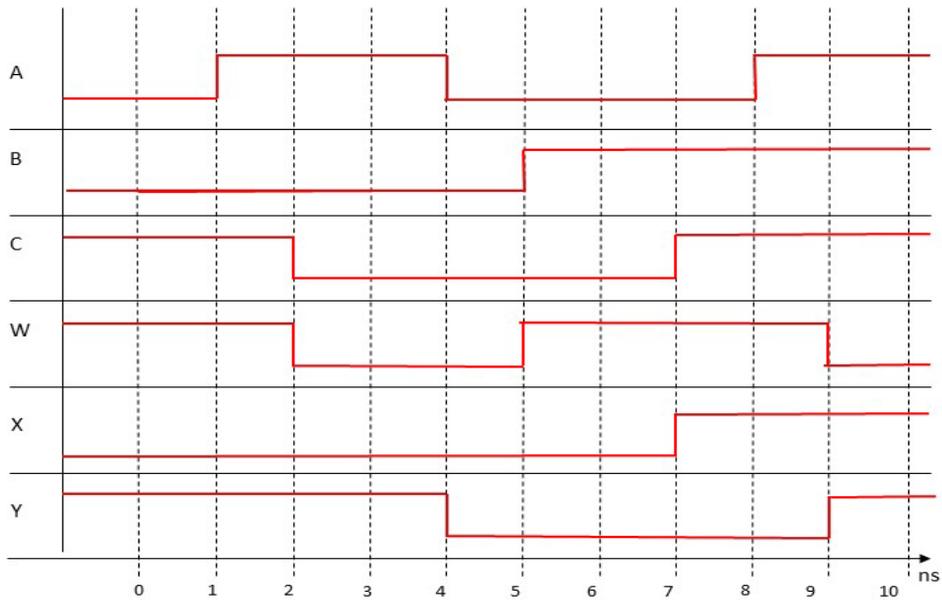
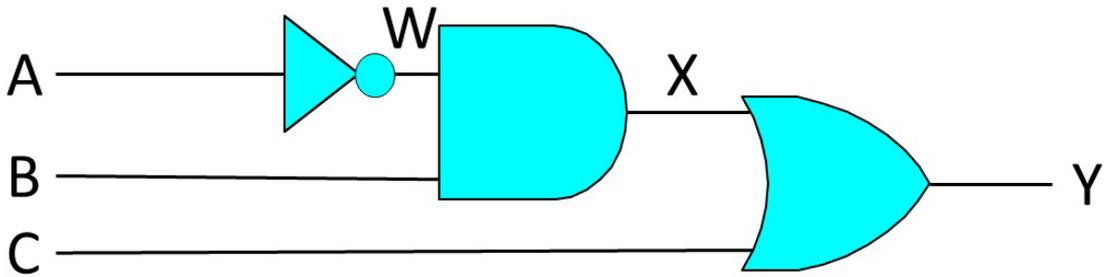


Logic design (2016 spring)

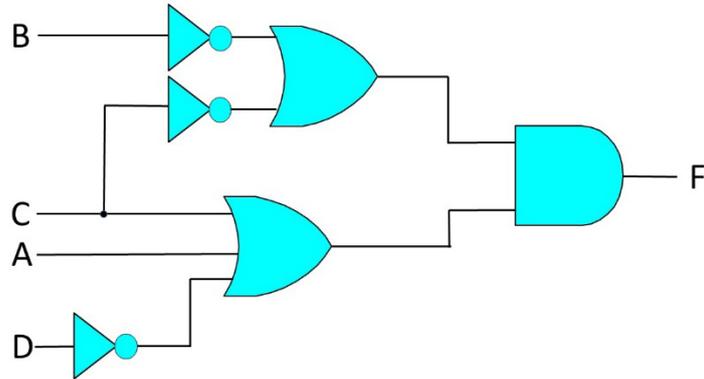
Quiz # 8

Name: _____ ID: _____

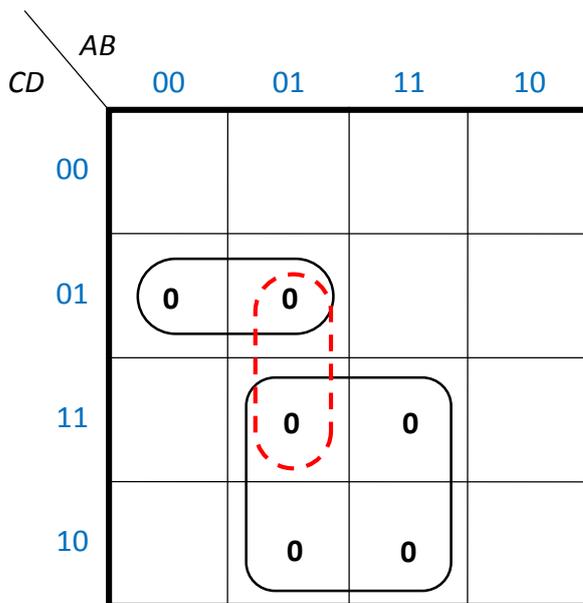
1. (60%) Draw the signal waveforms of W, X and Y for the following circuit. The signal waveforms of inputs A, B and C are provided in the following timing diagram already. The delay of a NOT gate is 1ns. The delay of an AND gate or an OR gate is 2ns



2. (40%) If we try to add some extra sum terms in the following two-level OR/AND circuit in order to eliminate all static hazards resulting from a single input change, what terms should we add? Write down the terms which should be added. (No need to re-draw the circuit.)



Ans:



$$F=(A+C+D')(B'+C')(A+B'+D')$$