comp3222 final revision

week5: flip-flops, registers counters

flip-flops, which store a single bit

registers, which store multiple bits

shift registers, which shift the contents of the register

counters of various types

Gated SR latch: it has illegal input condition when both S and R are 1

Gated D latch: it eliminates the illegal input combination S=R=1; useful for storing a data bit

nagative edge-triggerd (master-slave) D flip-flop:



code for positive edge-triggered D flip-flop:



D flip-flop with asynchronous reset:



D flip-flop with synchronous reset:



code for an n-bit register with asynchronous clear:



8-bit register based on regn component

