

EE709 Assignment

1. Consider the two finite state machines shown in Figure 1. Using a SAT solver (MINISAT for example), check whether the two state machines are equivalent. Assume that the initial state of all the flip-flops is 0, and determine if the two machines are equivalent for up to 8 steps starting from this initial state.
2. Consider the combinational logic circuit shown in Figure 2. Using a SAT solver (MINISAT for example), derive tests for the faults indicated in the Figure.

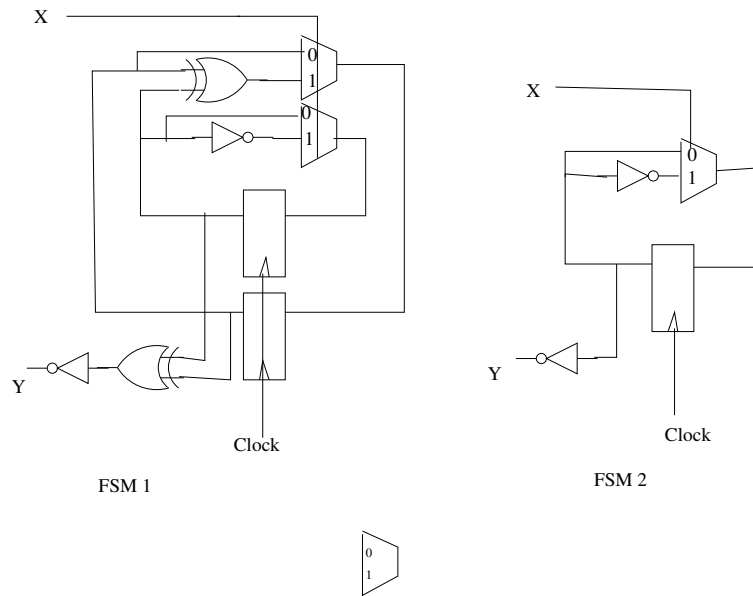


Figure 1: Two FSMs

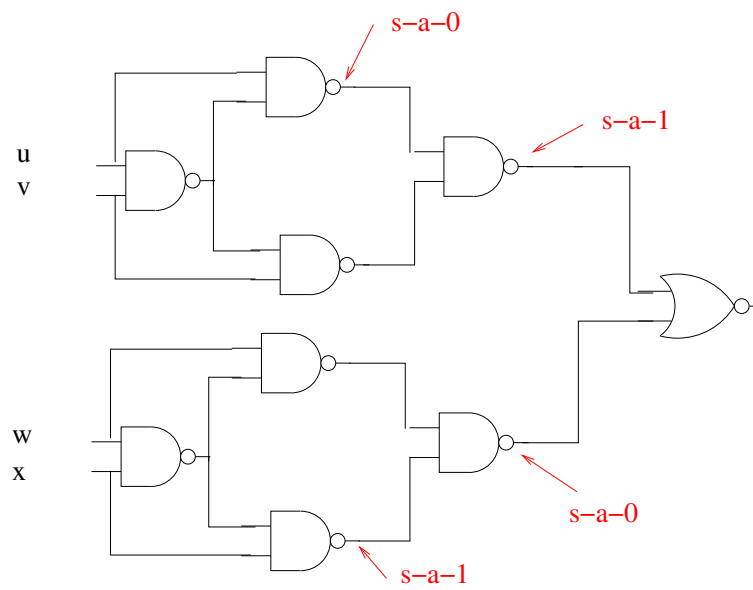


Figure 2: Combinational logic circuit