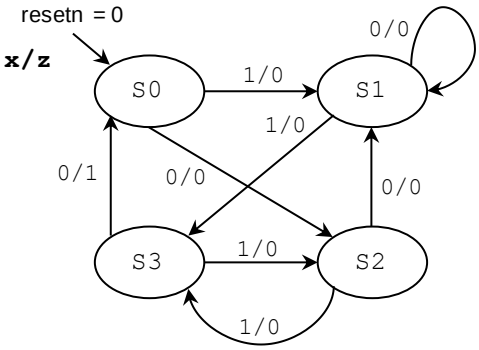
Quiz 4

(Nov. 21st @ 5:30 pm)

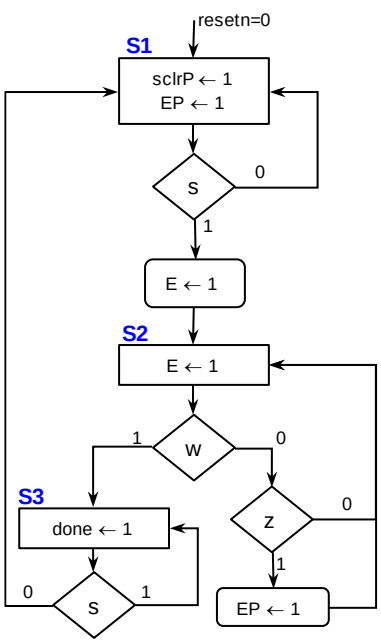
PROBLEM 1 (30 PTS)

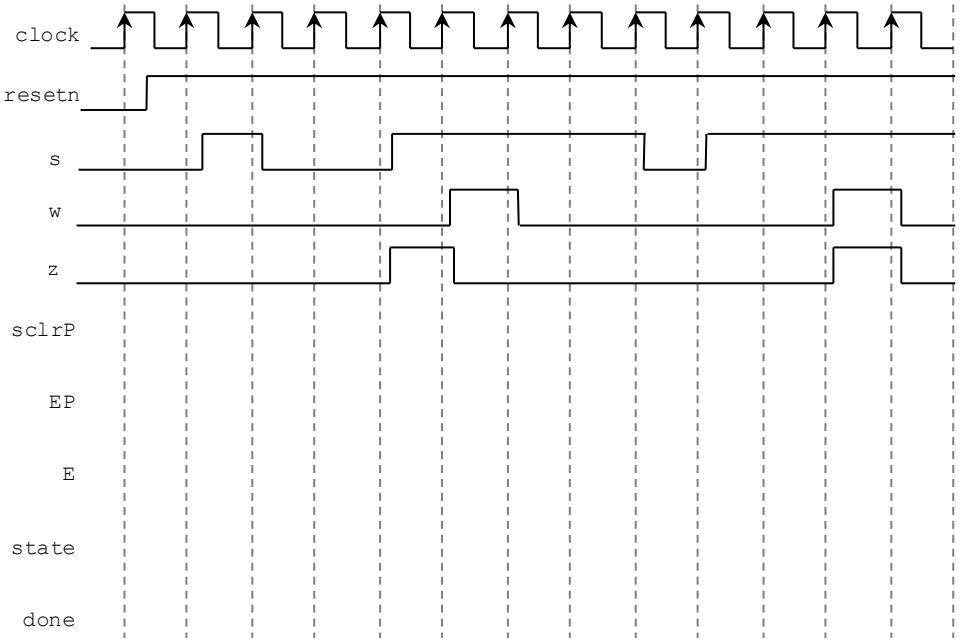
- Given the following State Machine Diagram.
  - ✓ Is this a Mealy or a Moore machine? Why?
  - ✓ Provide the State Table and the Excitation Table.
    - Use S0 (Q=00), S1 (Q=01), S2 (Q=10), S3 (Q=11) to encode the states.



PROBLEM 2 (40 PTS)

- Complete the timing diagram of the following FSM (represented in ASM form):





PROBLEM 3 (30 PTS)

- Sequence detector: Draw the state diagram (any representation) of an FSM with input x and output z. The detector asserts $z = 1$ when the sequence 1110 is detected. Right after the sequence is detected, the circuit looks for a new sequence.