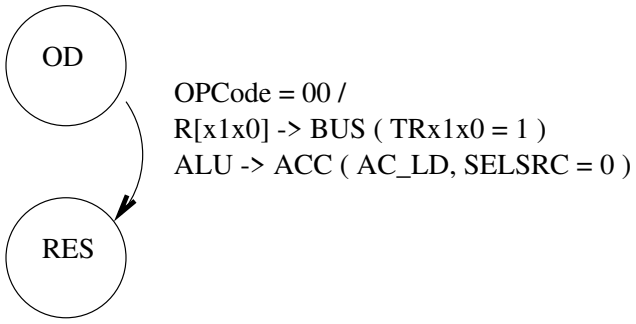
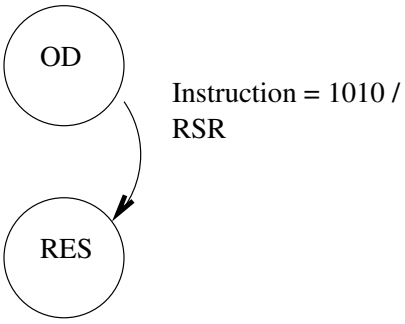
2. c. Consider execution of the ADD instruction.
Draw the state diagram.



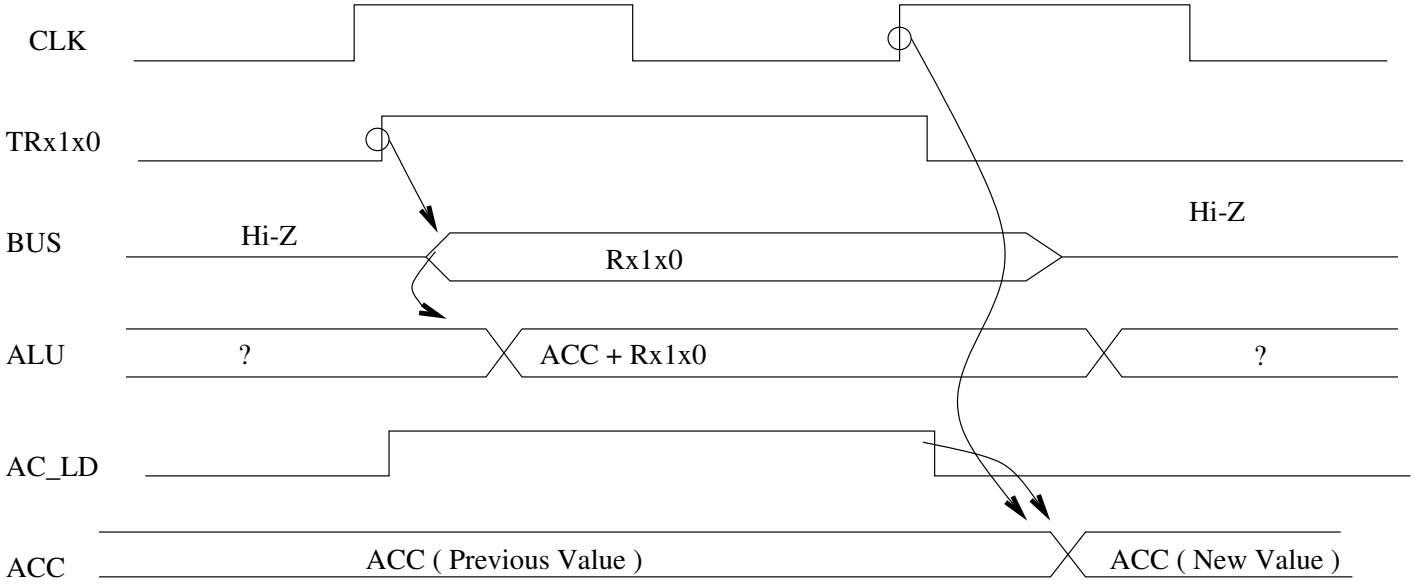
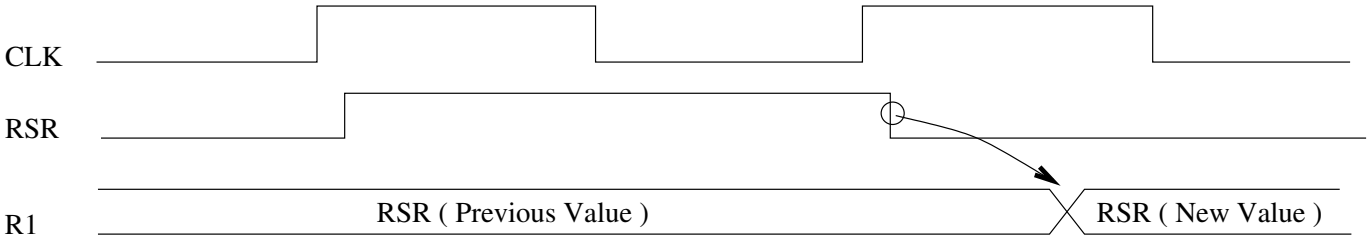
It takes one state when done with registers as data sources.

2. d. Consider execution of the RSR instruction.
Draw the state diagram.



It takes one state.

3. a. Draw timing diagram for ADD instruction.



b. Draw timing diagram for RSR instruction.