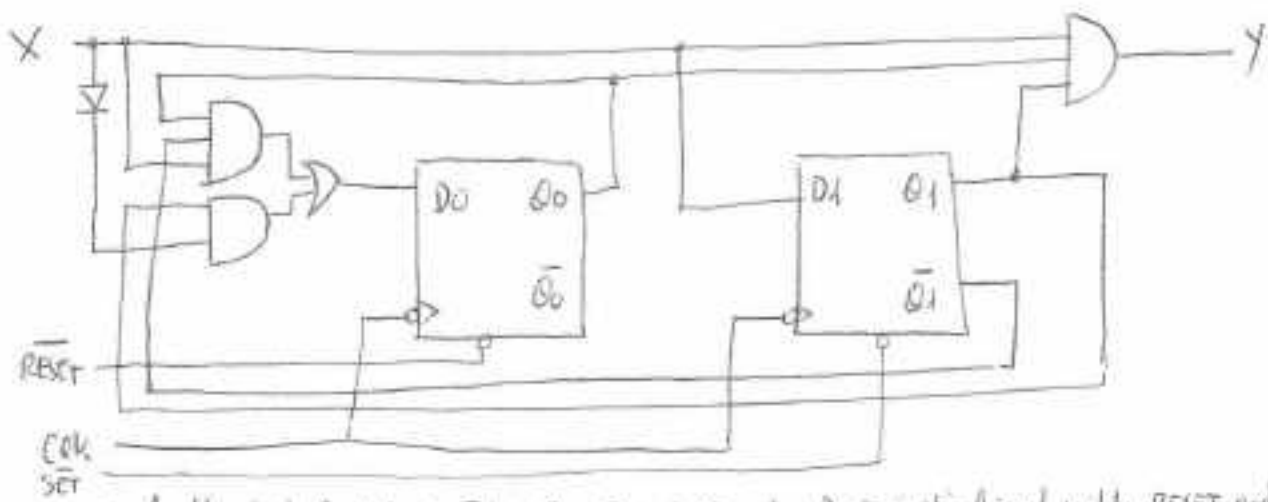e) The complete circuit is something like this:

→ As the initial state is E1 ⇒ $Q_0 = 0$ and $Q_1 = 1$, D_0 is initialized with RESET and D_1 is initialized with SET
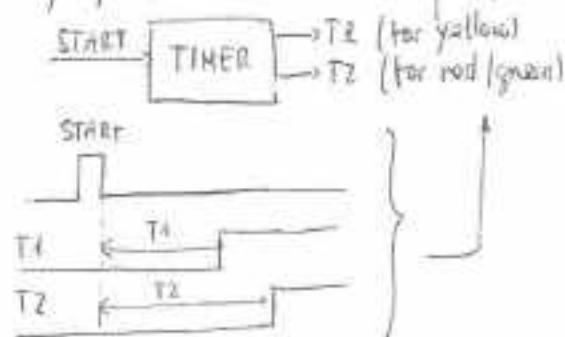
* Question 5

a) Inputs: There are 3 inputs for this system, reading the ennunciate of the question
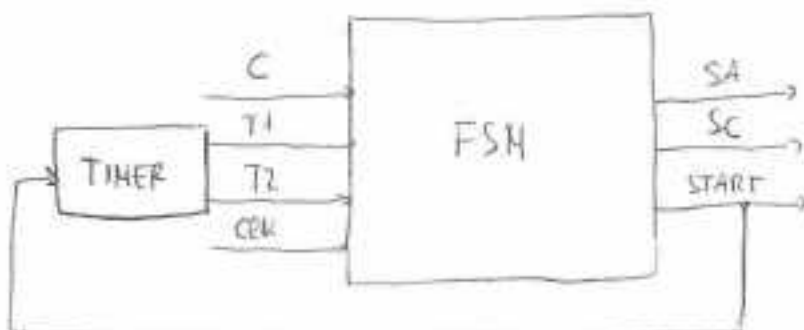   - C = vehicle sensor
   - T1 = Time for yellow
   - T2 = Time for red / green

Outputs: There are 3 outputs for the system, understanding what the question proposes
   - SA = Traffic light for the motorway
   - SC = Traffic light for the road
   - START = Necessary signal to start the timer for T1 and T2

Therefore, the block diagram for the circuit is like this:

b) Looking at the Notation for the STG, the circuit is Mealy