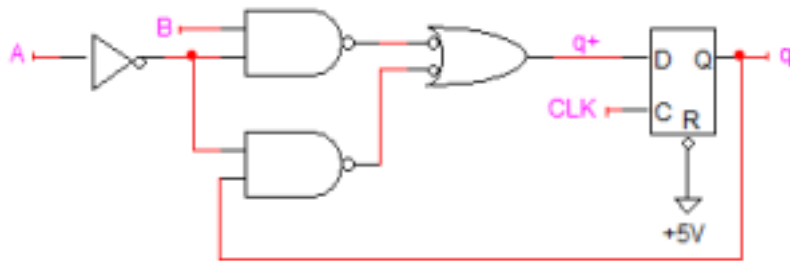
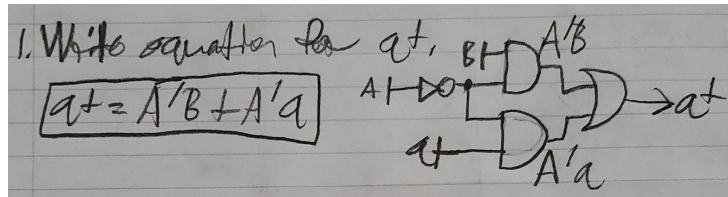


CSC 137 Cokgor Homework 3 (5 points)

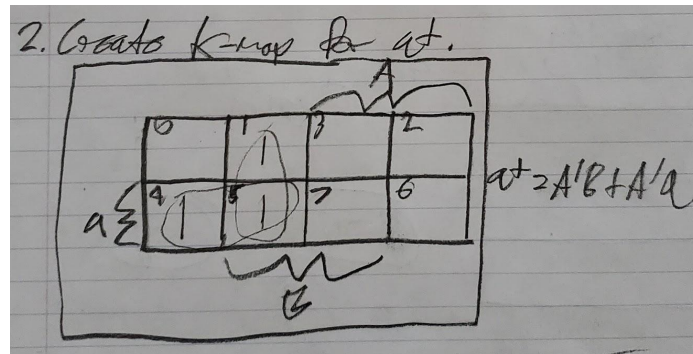
Consider the state machine circuit below:



1) Write the equation for q^+ . (0.5 point)



2) Create the K-map for q^+ . (1 point)

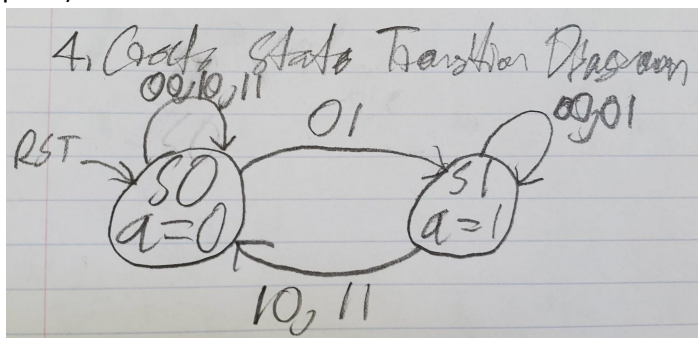


3) Create the state transition table using the K-map. (1.5 point)

3. Create state transition table using K-map

Present state	Present state a AB	Next state a+	Next state
S0	000	0	S0
S0	001	0	S1
S0	010	0	S0
S0	011	0	S0
S1	100	1	S1
S1	101	1	S1
S1	110	0	S0
S1	111	0	S0

4) Create the state transition diagram and explain the purpose of the circuit. (2 point)



This circuit will go to state S1 if it is in state S0 and A'B is 1 and it will go to state S0 if it is in state S1 and A = 1.