

Name: _____ unique name: _____

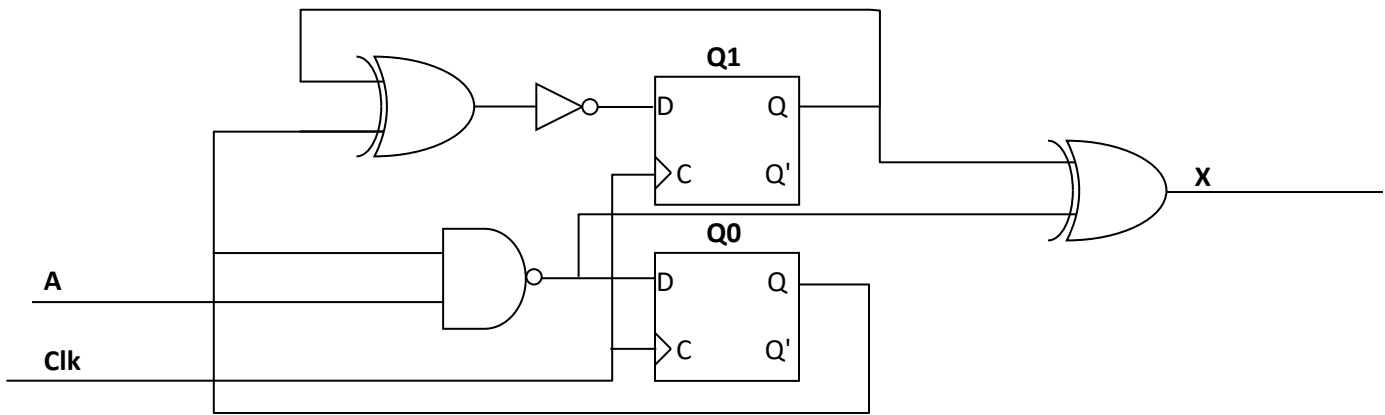
Honor code:

I have not given or received aid on this quiz, nor have I observed anyone else doing so:

Sign here: _____

This quiz is graded out of 100 points and is worth about 4% of your class grade.

Closed everything including calculators! To receive partial credit, work must be shown.



- 1) Draw the state transition diagram for the above circuit. You should assume "00" is the initial state. Please label each state as "Q1Q0" (so if Q1=1 and Q0=0 the label would be "10"). Don't include unreachable states (if any). **[50]**

- 2) Find the minimal sum-of-products of F using the Quine-McClusky algorithm. For this problem we'll be grading your answer primarily based on your work so be sure to be careful, clear and neat. Use the format provided. **[50]**

$$F = \sum_{A,B,C,D}(0,5,8,10,11,14,15)$$

Column I	✓
0000	

Column II	✓

Column III	✓

List of Prime Implicants (Provide in the form AB, AC', D)

List of distinguished ones (provide the binary value of each distinguished one):

Minimal sum-of-products: _____