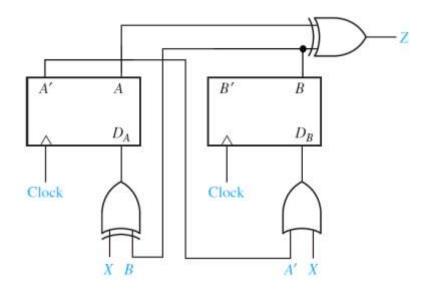
## Homework 12-13

First Name: Last Name: Red ID#:

## 12.1

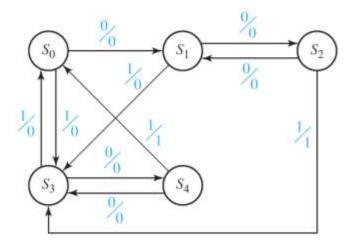
Derive the equations of next state  $A^+B^+$  and output Z as a function of A, B, X for the following circuit:



## 12.2

Fill up the next state table (truth table) and draw the state graph of the sequential circuit in 12.1. Is it a Moore circuit or Mealy circuit? Justify your answer.

12.3 Fill up the next state table and derive the next state equations for the following state graph:



## 12.4

Realize the sequential circuit that performs the function specified in the state graph of 12.3. Is it a Moore circuit or Mealy circuit? Justify your answer.

13.1 Construct the state table for the following state graph:

