

CMPE 222
Spring 2018
Popup Quiz #1

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Name Lastname:

ID:

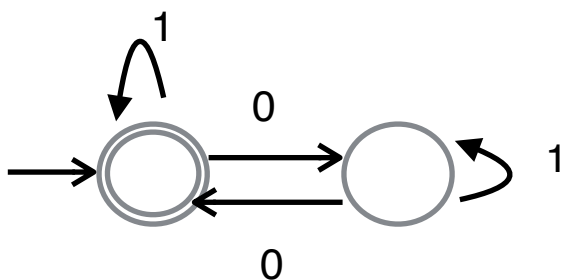
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1. The language $L = \{\omega \mid \omega \text{ starts with the } 00 \text{ substring or } 11 \text{ substring}\}$. The alphabet, $\Sigma = \{0,1\}$

- **(10 pts)** Write 5 strings in L and 5 strings **not** in L (all strings you write should be from the alphabet Σ)

- **2. (40 pts)** Design a FSA (finite-state automaton) that recognizes L .

2. **(50 pts)** Consider the following FSA, M . The alphabet, $\Sigma = \{0,1\}$



- **(20 pts)** Write 5 strings accepted by M and 5 strings **not** accepted by M (all strings you write should be from the alphabet Σ)

- **(30 pts)** Describe verbally (in a compact way) the language that M recognizes.

