CMPE 222
Spring 2018
Popup Quiz #1 (Sec 2)

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Name Lastname:
ID:
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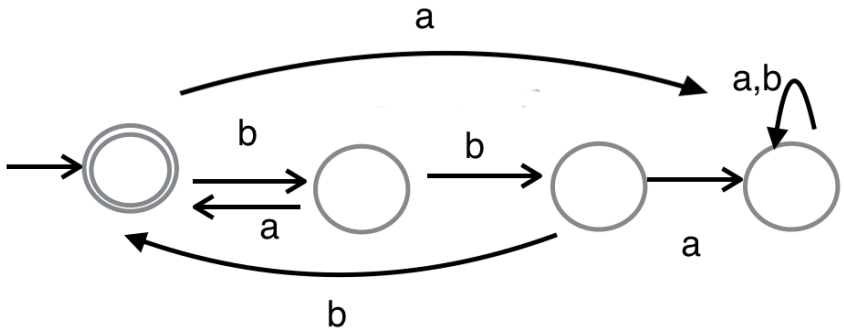
1. The language L = {ω | ω ends with 01 substring or 10 substring}. The alphabet, $\Sigma = \{0,1\}$

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

   - **(20 pts)** Design and then write the FSA (finite-state automaton) as a five-tuple $(Q, \Sigma, \delta, q_0, F)$ where Q is the set of states, δ is the transition function, q_0 is the initial states and F is the set of final states.

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.