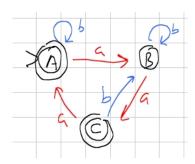


 $\begin{array}{c} \rm Ma2201/CS2022 \\ \rm Quiz\ 1011 \end{array}$ 

## Foundations of C.S.

Spring, 2021 Online Quiz

1. (7 pts) Consider the following Deterministic Finite Automaton.



Use expression graphs to determine a regular expression for it's language. Show all steps in the process.

2. (3 pts) Consider the language  $L = \{w \in \{a,b\}^* \mid w = a^i b^j; i < j\}$ . Use the Finite State Test (any valid version) to show that L is not regular.