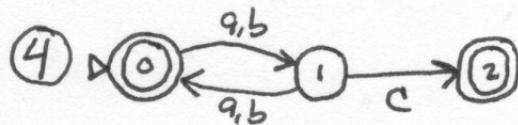
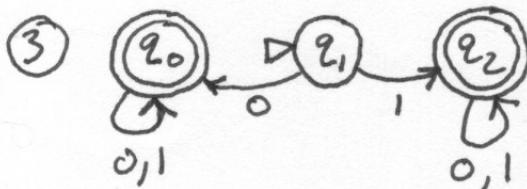


- ① a) reject b) accept c) reject ② a) accept b) accept c) reject



⑤ $(\{P_1, P_2, P_3\}, \{a, b\}, \begin{array}{c|cc} a & P_1 & P_2 \\ \hline P_1 & P_2 & P_3 \\ P_2 & P_3 & P_1 \\ P_3 & P_1 & P_2 \end{array}, P_1, \{P_1\})$

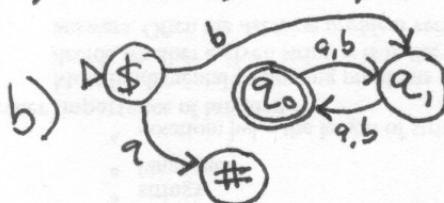
SI472 6-Week
Exam Solutions

⑥ $(\{q_0, q_1, q_2, q_3\}, \{a, b, c\}, \{(q_0, a, q_1), (q_0, b, q_2), (q_1, b, q_3), (q_1, c, q_1), (q_2, a, q_3), (q_2, c, q_2), (q_3, a, q_0)\}, q_0, \{q_3\})$

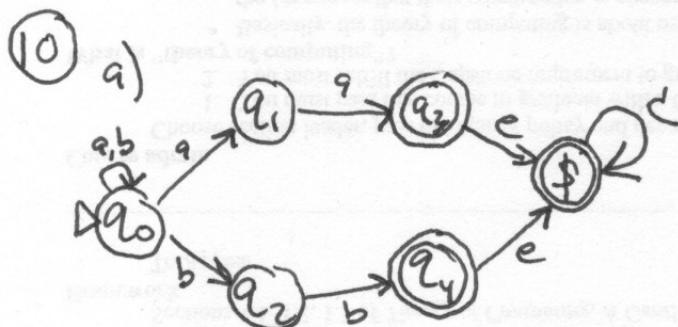
⑦ The language of strings over $\{a, b\}$ that end in bab.

⑧ The language of strings over $\{a, b, c\}$ that end in c followed by an even number of a's or an even number of b's.

⑨ a) $M' = (\{q_0, q_1, \$, \#\}, \{a, b\}, \begin{array}{c|cc} a & q_0 & q_1 \\ \hline q_0 & q_1 & q_1 \\ q_1 & q_0 & q_0 \\ \$ & \$ & q_1 \\ \$ & \$ & \$ \end{array}, \$, \{q_0\})$



c) The algorithm produces a machine M' accepting the strings accepted by M that start with x .



b) The algorithm produces a machine M' that accepts any string accepted by M followed by zero or more x 's.