

Ex. 1 \_\_\_\_\_

Propose a complete deterministic finite state automaton which recognizes all the words on  $\Sigma^*$  such that all  $a$ 's are before all  $b$ 's (if any), the number of  $a$ 's is odd (thus  $\geq 1$ ) and the number of  $b$ 's is even, and  $c$ 's can occur anywhere ( $\Sigma = \{a, b, c\}$ ).

Ex. 2 \_\_\_\_\_

Draw a deterministic automaton which recognizes all the words on the monoid  $\{a, b, c\}^*$  which start with  $c$ , include the factor  $baba$ , and end with  $c$ .