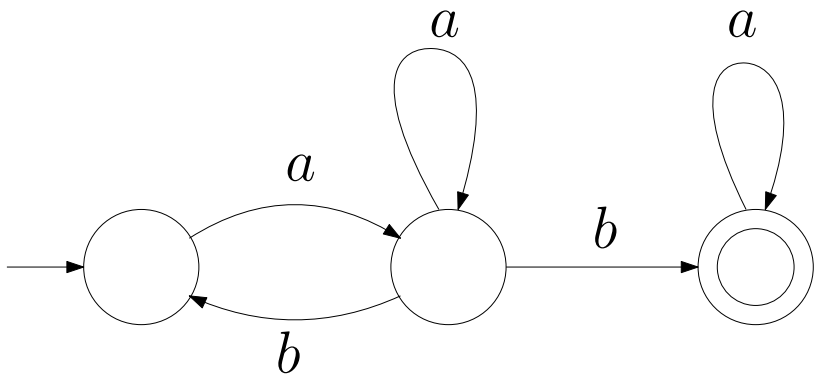
Quiz 3

1. Which of the following regular expressions expresses the language accepted by the FA below:



(a) $(ab)^*aba^*$

(b) $aa^*ba^* + (ab)^*ab$

(c) $a(ba + a)^*ba^*$

(d) aa^*ba^*

2. To obtain an NFA for the *complement* of L, you can start with an NFA M for L and switch the status of each state from "accept" to "non-accept" and vice versa.

   (a) True

   (b) False

3. In the procedure of converting an NFA M into a right-regular grammar G, the transitions of M correspond to

   (a) Variables of G

   (b) Terminals of G

   (c) Production rules of G

   (d) None of the above

4. For every regular language L there is a DFA M such that $L(M) = L$ and M has one accept state.

   (a) True

   (b) False

5. The following grammar is regular:

$$S \to abA|\lambda$$
$$A \to Bba|abaA$$
$$B \to Bbbb|\lambda$$

(a) True

(b) False