QUESTION 1

All regular languages are finite.

○ True

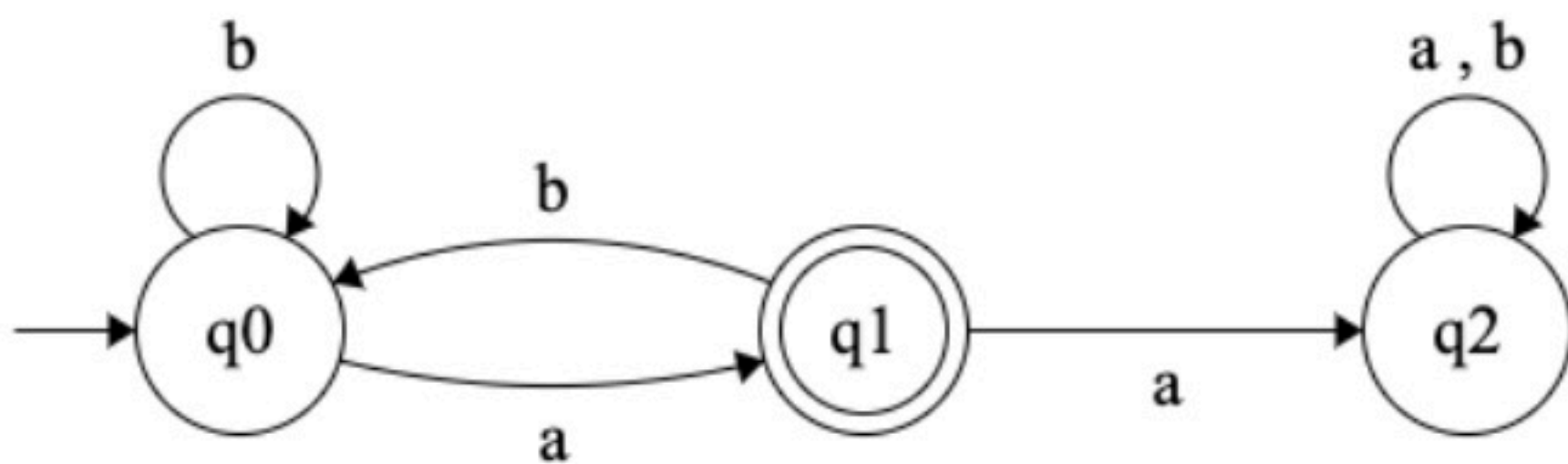● False

0.5 points ✔ Saved

QUESTION 2

There are some languages accepted by deterministic finite automata but not non-deterministic finite automata.

○ True

● False

QUESTION 3

Consider the following machine:

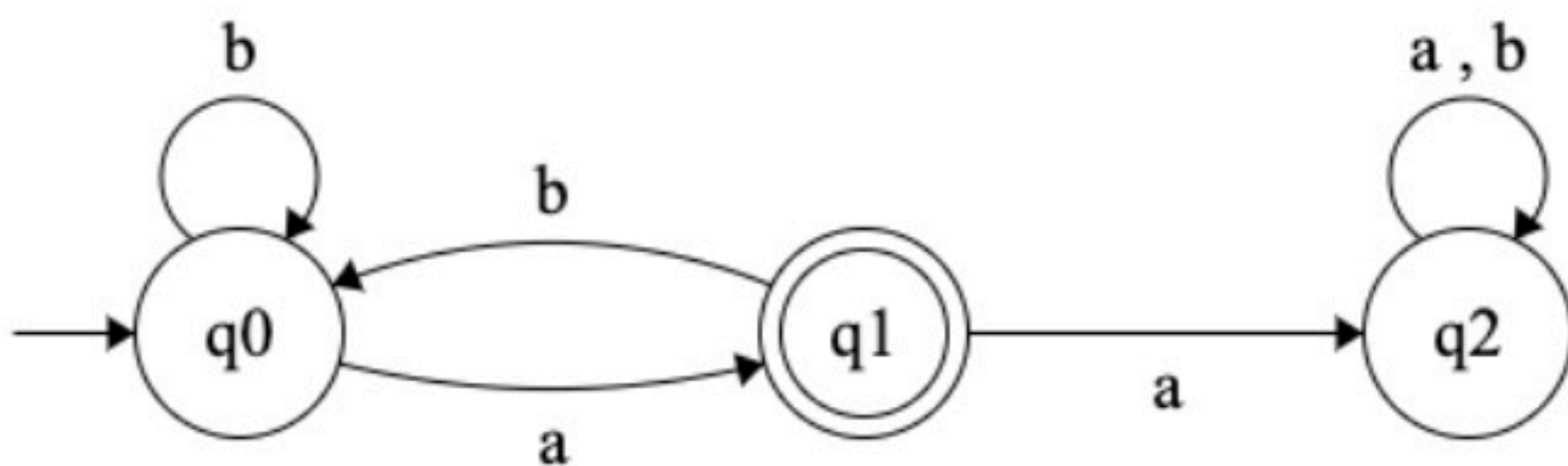Is the above finite automata deterministic?

⦿ Yes

◯ No

0.5 points ✔ Saved

QUESTION 4

Consider the following machine:

What is the language covered by the above automata?
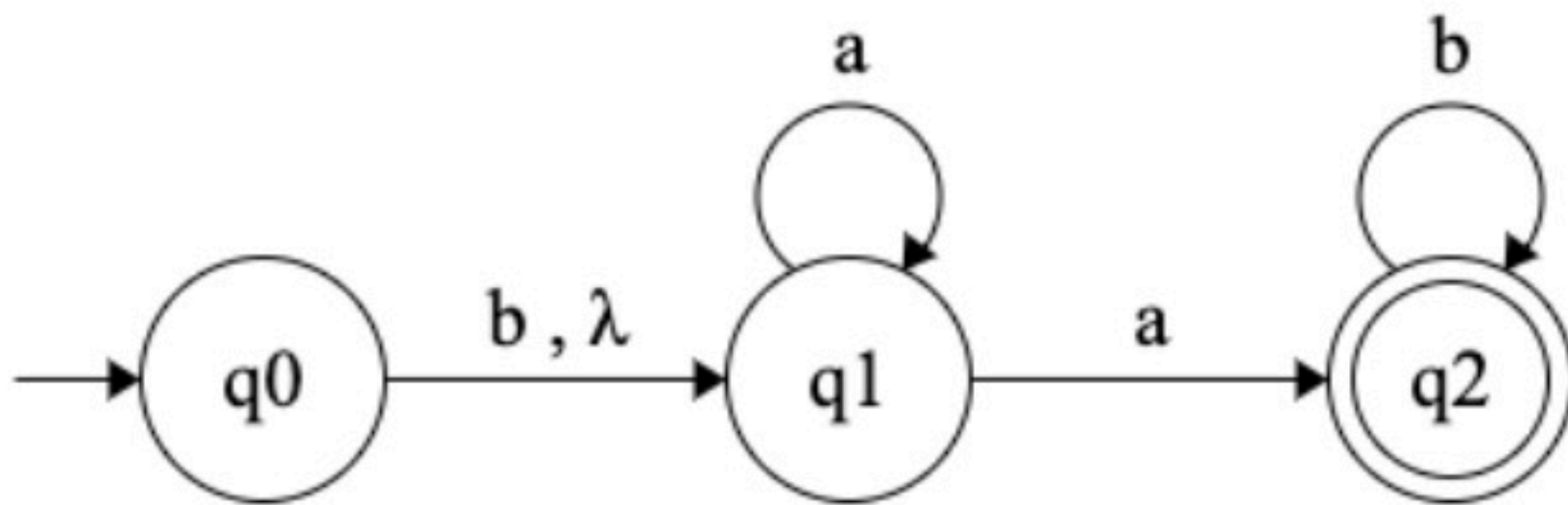
- ○ A. None
- ● B. $L = \{w \mid w \text{ ends with } a\}$
- ○ C. $L = \{w \mid \text{each } a \text{ in } w \text{ is followed by exactly two } bs\}$
- ○ D. $L = \{w \mid \text{each } a \text{ in } w \text{ is followed by at least one } b \text{ and } w \text{ ends with } a\}$

QUESTION 5

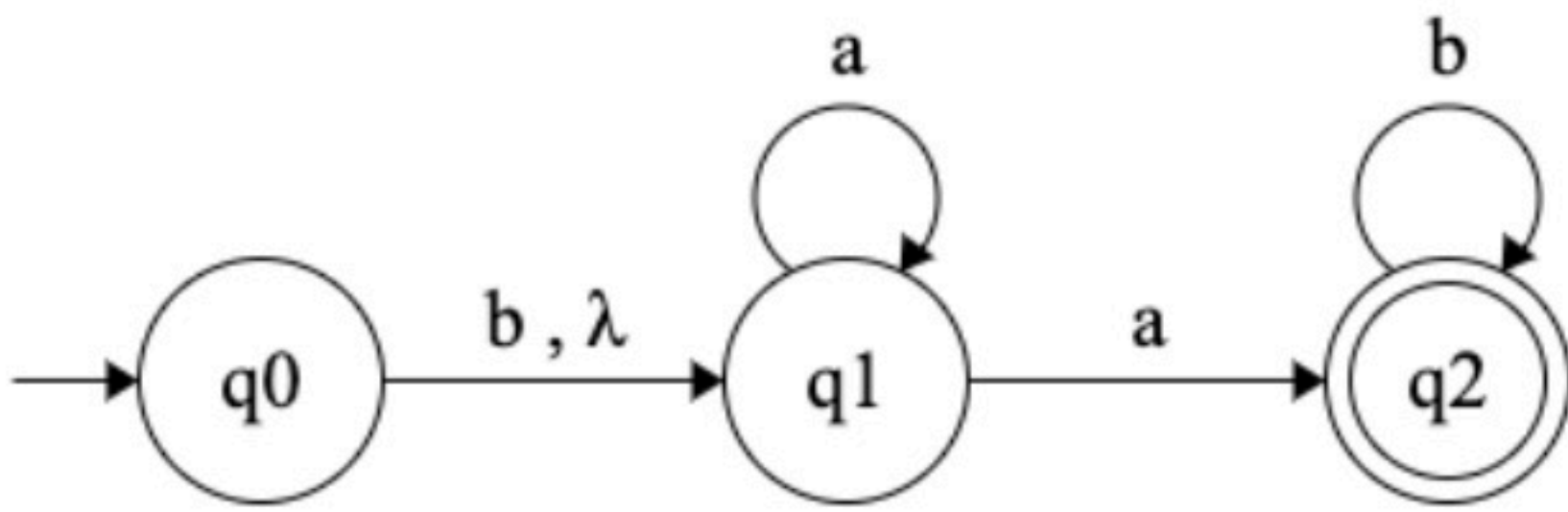Consider the following NFA:

$\Sigma =$

A. None

B. $\{a, b\}$

C. $\{a, \lambda\}$

D. $\{a, b, \lambda\}$

0.5 points ✔ Saved
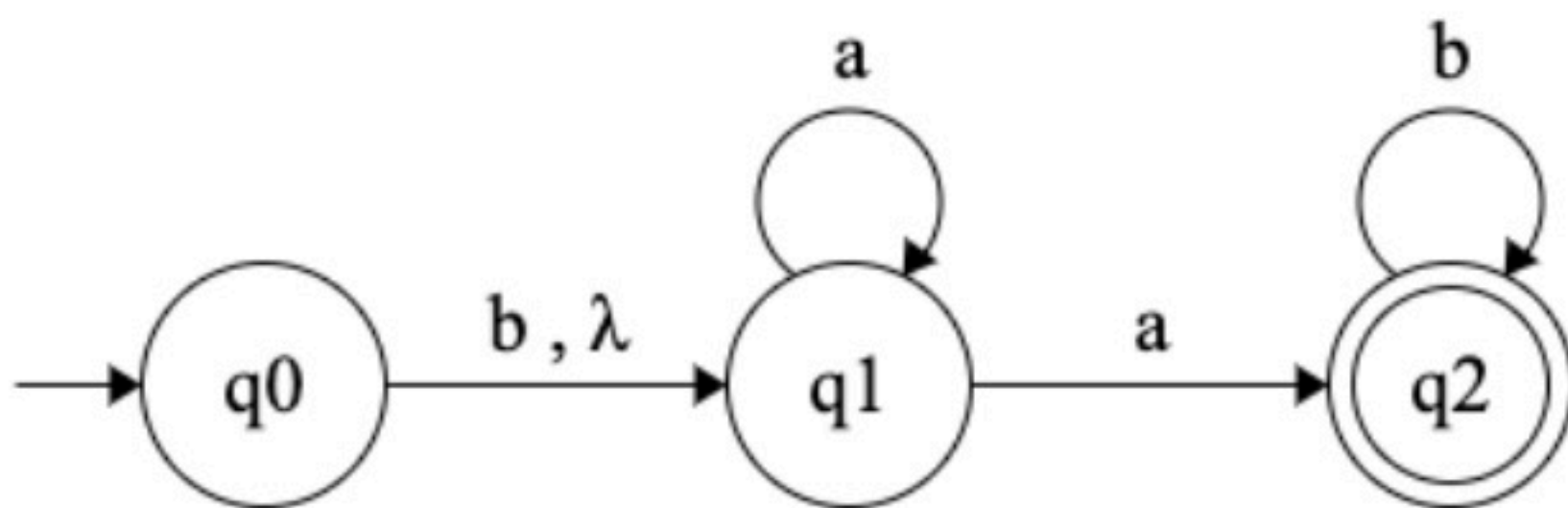
Consider the following NFA:

$\delta^*(q1,\ baaaa) =$

- A. q1
- B. q2
- C. ∅
- D. q0

0.5 points   ✔ Saved

Consider the following NFA:

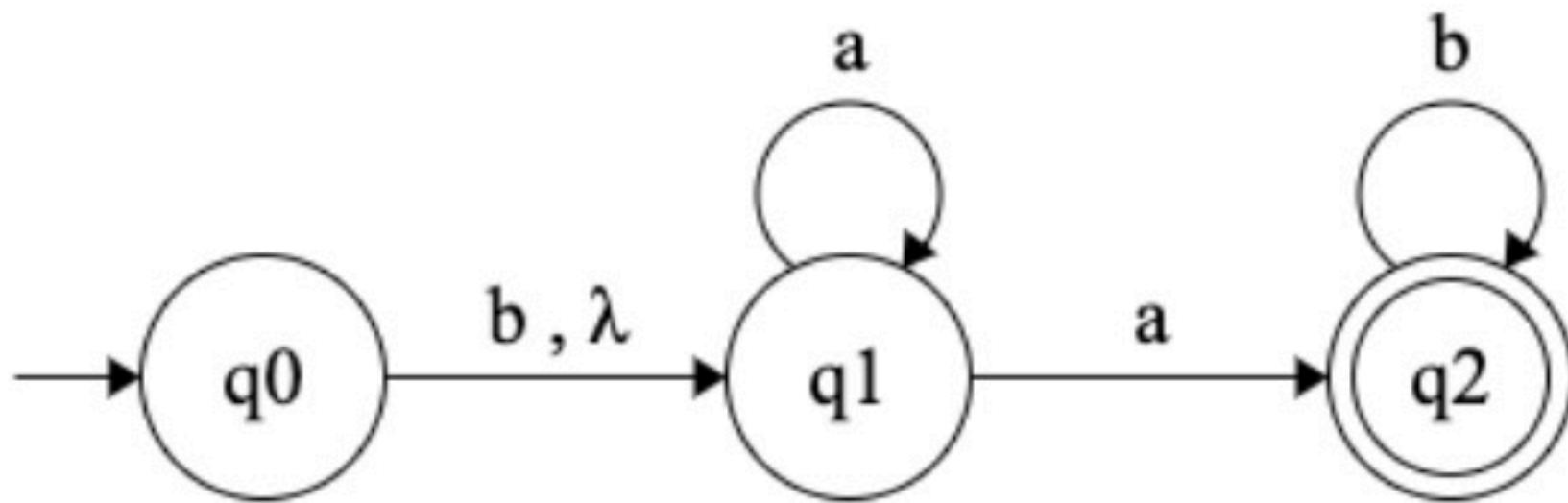

Does the NFA accepts $aaaaa$?

○ Yes

○ No

0.5 points   ✔ Saved

QUESTION 8

Consider the following NFA:

What is the language covered by this NFA ?

- ● A. $L = \{b^n a^m b^k : 0 \le n \le 1,\ m > 0,\ k \ge 0\}$

- ○ B. $L = \{b a^m b^k : m > 0,\ k \ge 0\}$

- ○ C. $L = \{b^n a^k b^k : n = 1,\ k \ge 0\}$

- ○ D. $L = \{b^n a^m b^m : 0 \le n \le 1,\ m \ge 0\}$

1 points   ✔ Saved