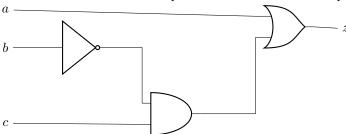
1. The state diagram of a sequence detector is shown below. State S_0 is the initial state of the sequence detector. If the output is 1, then



- A. the sequence 01010 is detected
- B. the sequence 01011 is detected
- C. the sequence 01110 is detected
- D. the sequence 01001 is detected

(GATE CS 2020)