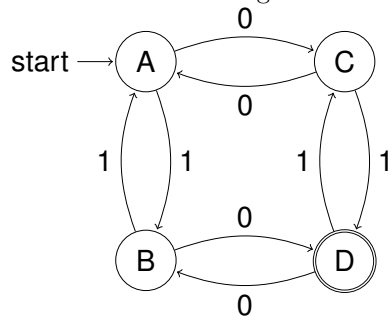


1. **Problem**

Consider the following automaton with initial state A and accepting state D:



Which of the following sequences are accepted?

- (a) 101000
- (b) 00000
- (c) 10100
- (d) 0000110
- (e) 00111

**Solution**

The given automaton accepts input strings which consist of an odd number of ones and odd number of zeros.

- (a) Not accepted
- (b) Not accepted
- (c) Not accepted
- (d) Not accepted
- (e) Not accepted