

NO NOTES, BOOKS, ELECTRONIC DEVICES, OR INTERPERSONAL COMMUNICATION ALLOWED. Submit each solution on a separate sheet of paper.

Problem

LO1. Do the following.

- (a) Provide the state diagram of a DFA M that accepts exactly those binary words w for which every 1 in w is followed by at least two 0's. Hint: M accepts any word that consists of all 0's.
- (b) Show the computation of M on input i) $w = 001000100$ and ii) $w = 0100010$.