Practice Problems on Testability Measures

1. For the combinational circuit shown in Figure 1, compute the combinational controllability and observability measures.

2. Solve problems 6.2, 6.3, 6.4, 6.5, 6.7, 6.8 and 6.9 from the book by Bushnell-Agrawal.

3. Give expressions to compute the combinational and sequential controllability and observability values for the following:

    a. A clocked J-K flip-flop with a synchronous clear input

    b. A T flip-flop with a synchronous clear input

    c. A S-R flip flop without any clear input

4. For a 2-to-1 multiplexer, give expressions to compute the controllability and observability values.

FIGURE 1