

Problem 1 (20 Points)

- a. Mark all single stuck faults on Figure 1, taking one fault from each equivalence class.
- b. Use the Boolean difference to determine all possible tests for the fault “primary input B stuck-at-1” in Figure 1.

Problem 2 (20 Points)

- a. Use the D-algorithm to obtain a test pattern T that detects the fault “line  $\alpha$  stuck-at-0” in the logic circuit of Figure 1.
- b. Identify at least three other stuck at faults that are detected by the same test T.

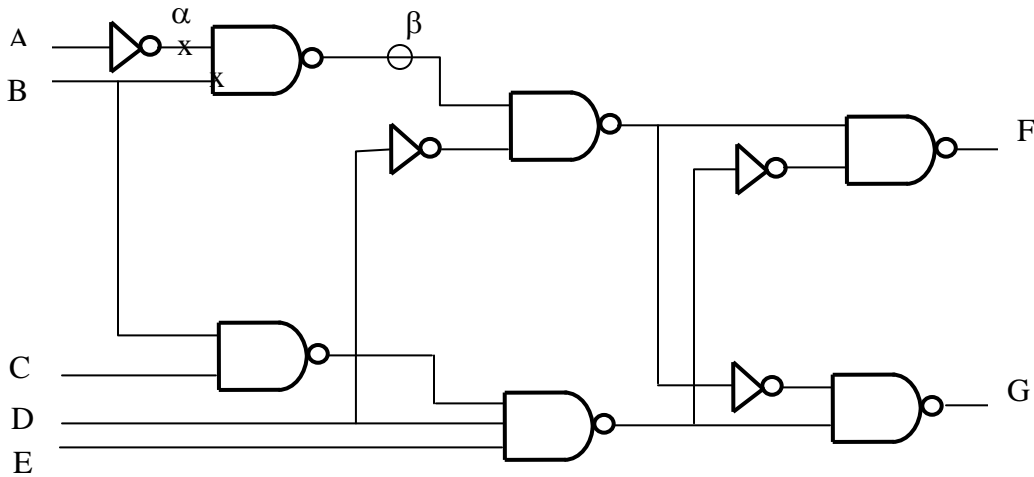


Figure 1

Problem 3 (20 Points)

- a. Using Boolean difference, find a set of tests for input A s-a-1 in Figure 1.
- b. Using Boolean difference, find a set of test  $\beta$  s-a-0.

Due: Oct. 4, 2007