



Test and Testable Design (Fall 1402)

Assignment #4

Due date: 1402/09/28 (Tuesday in person)

Late submission = -50%

In this exercise, you are asked to implement Random Test Generation (RTG).

Use Netlist of *CKT.V* in the previous assignment and do the followings:

- a. Write a testbench to generate test vectors which is described below:
 - i. You need to make a list of collapsed faults in “*CKT.flt*” using the PLI function *\$faultCollapsing*
 - ii. Use the adjustable expected coverage RTG method and start with efCount=5. You can decide how to implement the adjusting method.
 - iii. In the simulation, a random test vector must be applied to the entire fault.
 - iv. Your test generation stops when fault coverage is more than 95% or maximum number of consecutive random tests that do not satisfy efCount is 13.
 - v. The testbench must write the qualified test vectors into “*CKT.tst*”.
 - vi. Fault coverage of the generated test set must be reported in the “*CKT.tst*”.