CS3120
Introduction of Integrated Circuit Design

Final Project
Testcases

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Outline

◆Testcases
◆Waveform template

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Testcases

◆We provide two public testcases for the final project
  1) $I1 = 8$, $I2 = 2$, $I3 = 3$, $I4 = 7$
  2) $I1 = 15$, $I2 = 14$, $I3 = 13$, $I4 = 12$
◆ Each of testcase will be test serially
◆ We will only check the correctness of signals at the falling clock edge on the 5th clock after reset (as the red blocks show in page 5 and 6 in this document)
◆ You can find the simulation settings in *testcases.sp*

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Waveform template

◆For the column 1 (O10-O19)
  1) Testcase 1 ($I1 = 8$, $I2 = 2$, $I3 = 3$, $I4 = 7$)
    • $8 * 1 + 2 * 3 + 3 * 7 + 7 * 15 = 140$ (10001100)
  2) Testcase 2 ($I1 = 15$, $I2 = 14$, $I3 = 13$, $I4 = 12$)
    • $15 * 1 + 14 * 3 + 13 * 7 + 12 * 15 = 328$ (101001000)
◆For the column 2 (O20-O29)
  1) Testcase 1 ($I1 = 8$, $I2 = 2$, $I3 = 3$, $I4 = 7$)
    • $8 * 2 + 2 * 6 + 3 * 8 + 7 * 12 = 136$ (10001000)
  2) Testcase 2 ($I1 = 15$, $I2 = 14$, $I3 = 13$, $I4 = 12$)
    • $15 * 2 + 14 * 6 + 13 * 8 + 12 * 12 = 362$ (101101010)

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Waveform template

Waveform template