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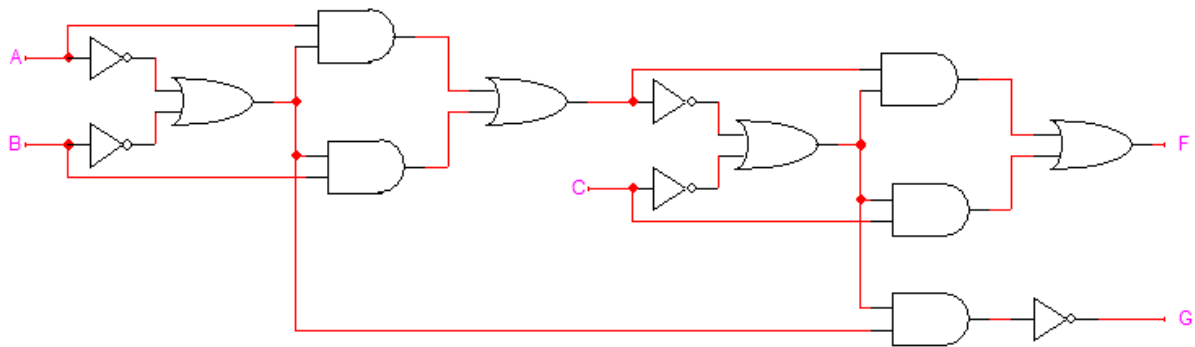
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COE 202, Term 142
Digital Logic Design

Quiz# 4

Date: Thursday, April 2, 2015

Q1 Convert the AND/OR/NOT logic diagram shown below to a NOR logic diagram.



Q2 A logic circuit has two inputs x & y each is a 2-bit unsigned number. It has an output number z such that $z = x^2 + y^2$.

a. What is the minimum number of bits required for the output number z ?

b. Construct the truth table of the circuit.

c. Derive the Boolean expressions of the two least significant output bits (z_0, z_1) using basic logic gates.

