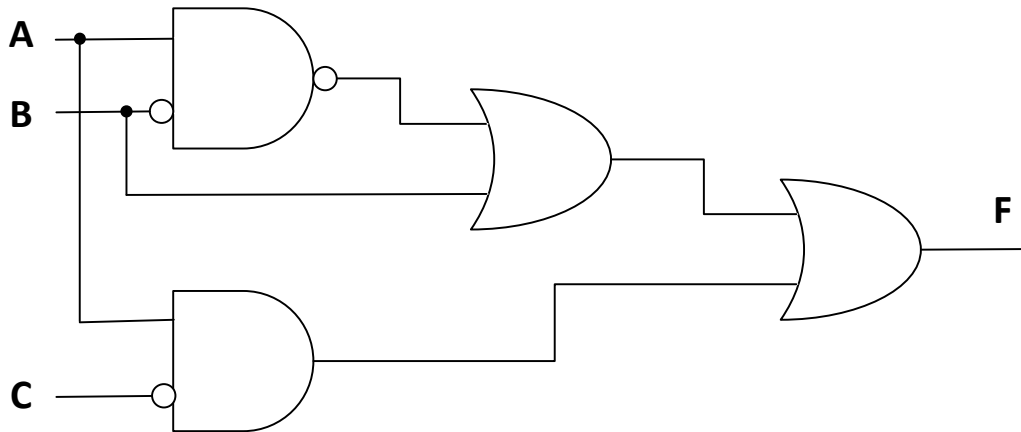


September 13th, 2012 2612 – Digital Design – Quiz 2 – 10 points; 10 min.

Name _____ Answers _____



1. Create a Boolean equation that represents the circuit above (any style). (2 points):

$$F = (A * B')' + B + A * C'$$

(verilog) `assign F = ~(A & ~B) | B | (A & ~C);`

2. Complete the truth table for the above circuit (use scratch area for intermediate signals). (5 points):

A	B	C	Scratch area	F
0	0	0	1 or 0 or 0	1
0	0	1	1 or 0 or 0	1
0	1	0	1 or 1 or 0	1
0	1	1	1 or 1 or 0	1
1	0	0	0 or 0 or 1	1
1	0	1	0 or 0 or 0	0
1	1	0	1 or 1 or 1	1
1	1	1	1 or 1 or 0	1

3. DeMorgan's Law, draw equivalent gates below each of those illustrated (3 points):

