

Xavier Richardson

ProLab Q1 Signed

$L(A < B)$ Max

$a_1 a_0$ \ $b_1 b_0$	00	01	11	10
00	0	1	0	0
01	0	0	0	0
11	0	0	0	0
10	0	0	0	0

$$\begin{aligned} \text{Less } 0 &= \bar{b}_1 b_0 \\ \text{Less } 1 &= 0 \\ \text{Less } 3 &= b_0 + \bar{b}_1 \\ \text{Less } 2 &= \bar{b}_1 \end{aligned}$$

$G(A > B)$

$a_1 a_0$ \ $b_1 b_0$	00	01	11	10
00	0	0	0	0
01	0	0	0	0
11	0	0	0	0
10	0	0	0	0

$$\begin{aligned} \text{Great } 0 &= b_1 \\ \text{Great } 1 &= b_1 + \bar{b}_0 \\ \text{Great } 3 &= b_1 b_0 \\ \text{Great } 2 &= 0 \end{aligned}$$

$E(A = B)$

L \ E	0	1
0	1	0
1	0	0

$$EQ = L \oplus E$$

ECE 37000: DIGITAL SYSTEMS — LOGIC DESIGN
FALL 2017

LAB # 3

LAB DAY/TIME: Wed. 8:00 AM

LAB TITLE: Structural Modeling of Max-based
Combinational Logic Networks

Due Date: 10-16-17

DEMO SIGNATURE: _____



STUDENT NAME: Xavier Richardson

PUID: 026787080

COLLABORATOR NAMES

STUDENT SIGNATURE: _____



(Student attests that document attached hereto is his/her own work)

signed

Xavier Richardson
Prelab 3 Q1

a1	a0	b1	b0		L(A<B)	E(A=B)	G(A>B)	
	0	0	0	0		0	1	0
	0	0	0	1		1	0	0
	0	0	1	0		0	0	1
	0	0	1	1		0	0	1
	0	1	0	0		0	0	1
	0	1	0	1		0	1	0
	0	1	1	0		0	0	1
	0	1	1	1		0	0	1
	1	0	0	0		1	0	0
	1	0	0	1		1	0	0
	1	0	1	0		0	1	0
	1	0	1	1		1	0	0
	1	1	0	0		1	0	0
	1	1	0	1		1	0	0
	1	1	1	0		0	0	1
	1	1	1	1		0	1	0