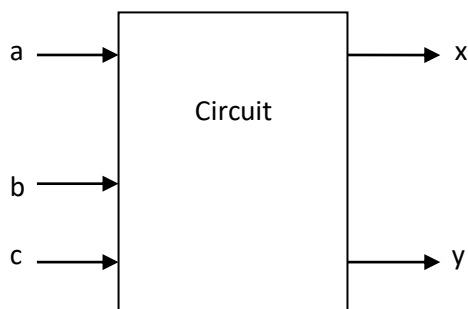


EE 213 LAB2 ASSIGNMENTS

1. Implement a circuit on Vivado, of which truth table is given below. Use WHEN/ELSE statements. Test it on a Basys3 board. What is the function of the circuit? (50 points)



a	b	c	x	y
0	0	0	0	0
0	0	1	1	0
0	1	0	1	0
0	1	1	0	1
1	0	0	1	0
1	0	1	0	1
1	1	0	0	1
1	1	1	1	1

2. By using WHEN/SELECT, create a design whose truth table is given below. Your design must cover ALL possible input combinations. Test it on a Basys3 board. What is the function of the circuit? (50 points)

Input			Output			
EN	I ₀	I ₁	A ₃	A ₂	A ₁	A ₀
0	X	X	0	0	0	0
1	0	0	1	0	0	0
1	0	1	0	1	0	0
1	1	0	0	0	1	0
1	1	1	0	0	0	1

Note: X means either 0 or 1.