CSE260 Lab Report

Experiment Name: IMPLEMENTATION OF 4-BIT MAGINITUDE

COMPARATOR

Submitted by

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1>	Name of the experiment: Implementation of a 4-bit
	Magnitude Comparator
	a) A = B is possible if and only if all the
	Objective: 112 of lauge di A 10 stid vuot
S	- draw a circuit that will act as a Magnitude
0	
3	Comparator between two 4-bits number
	= Bimpiement the circuitie in . Com (08 = 0A)
	Required Components:
bers	ENANDitgatest de sono fi sidissog si d < A (d
	is greater than the other one. stap 30 -
	- NOR gate
1	-ANOTA gate EA 20 0 = ED QUA 1 = BA
	- LED light
	- Logic States
	- Ground
.	- Wines
4>	Experimental Setup
4	- shown in Proteus file
	Shown in thosens the
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'A :	

+57 Results and Discussion is as solt to smou (1

a) A = B is only possible when A and B

are equal, such as A = 0000 and B = 0000

b) A > B only possible when one bit is
greater than the Other, such as mos banings? (8)

A = 5010 , B = 5000

c) A < B only possible when B is greater than A.

A = 0000 , B = 0010

TO find A < B from A > B and A = B,
we need to add a 2-input NOR
gate between the ontput of A > B and
A = B.