

Table 1: ECE 230L Laboratory 7 Grading Rubric

Criteria	Points Possible
<b>Diode OR Gate</b>	<b>10</b>
Circuit Diagram	2
Truth Table Verified	2
Variable diode drop values given for different diodes	3
Justification of whether circuit is “better”	3
<b>Diode AND Gate</b>	<b>8</b>
Circuit Diagram	2
Truth Table Verified	3
Diode Drop Value Noted	3
<b>Discrete MOS Inverter Circuit</b>	<b>49</b>
Circuit Diagram	2
Truth Table Verified	2
Voltage Lost Across Circuit	3
$V_{OL}$ from V-V <code>singleloop.vi</code> graph	5
$V_{OH}$ from V-V <code>singleloop.vi</code> graph	5
$I_{DD}(V_{in} = V_{OL})$	3
$I_{DD}(V_{in} = V_{OH})$	3
$P(V_{in} = V_{OL})$	2
$P(V_{in} = V_{OH})$	2
Image of $V_{out}$ when square wave is applied	3
Degraded image of $V_{out}$ when square wave is applied	3
High-to-Low Transition Time ( $t_{p-HL}$ )	3
Low-to-high transition time ( $t_{p-LH}$ )	3
Degradation frequency with explanation	3
Discrete NAND gate circuit diagram	3
NAND Truth Table verified	4
<b>Exploration: Discrete NAND Gate w/ Applications</b>	<b>12</b>
NAND Gate Truth Table Verified	3
Ring Oscillator Circuit Diagram	3
Period of oscillator for N inverters	3
Period of oscillator for 1 inverter	3
<b>Quality of thought/analysis</b>	<b>5</b>
<b>Total</b>	<b>84</b>