

Submission Sheet - Lab 6

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Section: 104

Scan this file and submit it on Canvas with the required images properly labeled in one file. Also include the required code. Every sign off requires either code or an image for points to be awarded.

1. TAs initials for the demonstration of physical implementation in Part 1 (20 Points)

Initials: CJS Date: 06/04

2. TAs initials for the demonstration of physical implementation in Part 2 (20 Points)

Initials: CJS Date: 06/04

3. Write the binary representation for the following two's complement values considering a fixed bit size of 8 bits. (15 Points)

a. Maximum Value: 0111 1111

b. Minimum Value: 1000 0000

c. Positive One: 0000 0001

d. Negative One: 1111 1111

e. Zero: 0000 0000

4. TAs initials for the demonstration of physical implementation in Part 3 (20 Points)

Initials: CJS Date: 06/04

5. In Part 4, a signed adder is used to add two 4-bit numbers. When adding these numbers, are the two numbers added first, then converted, or converted first then added? Why is the order important? (20 Points)

Because the adder needs to know whether the numbers are positive or negative first

6. You are performing the operation $A + B$ using 4 bits in signed form. Determine one value for A and one value for B such that when added together, using the rules of a 4-bit signed number, the result is not algebraically correct. (15 Points).

7 + 1 which is 1000 (-8)

7. TAs initials for test bench waveform. (20 Points)

Initials: W Date: 06/21

8. TAs initials for the demonstration of physical implementation in Part 4 (20 Points)

Initials: Chs Date: 06/21