ELC 2137 Lab 9: ALU

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Summary

Type the summary of your experiment and results here.

Q&A

Answer questions posed in the lab assignment here.

Results

| Time (ns): | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-55 |
|----------------------|-----|------------------|-------|-------|-----------------|------------------|-----------------|-------|------------------|-------|-------|
| D (hex) | 0 | 0 | A | A | 3 | 3 | 0 | 0 | $0\rightarrow 6$ | 6 | 6 |
| clk | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| en | 0 | 0 | 1 | 1 | $1\rightarrow0$ | $0\rightarrow 1$ | $1\rightarrow0$ | 0 | $0\rightarrow 1$ | 1 | 1 |
| rst | 0 | $0\rightarrow 1$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Q (hex) | X | $X\rightarrow 0$ | 0 | 0 | 0 | 3 | 0 | 0 | 6 | 0 | 0 |

Figure 1: ERT and Simultion Waveforms of Register

| Time (ns): | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 |
|------------|------|-------|-------|-------|-------|-------|
| in0 (dec) | 5 | 10 | 1 | 3 | 5 | 15 |
| in1 (dec) | 5 | 5 | 2 | 4 | 6 | 12 |
| op (dec) | 0 | 1 | 2 | 3 | 4 | 5 |
| out (dec) | a | 5 | 0 | 7 | 3 | 15 |

Figure 2: ERT and Simulation Waveforms of ALU

Code

Include all of the code you wrote or modified here.