**Digital Design Lab**

**ECE 315**

**Lab/Project #**

**Title Lab/Project**

**Group #**

**(Names)**

**Zeinab Ramezani, TA**

**University of Miami**

**Date**

Grading Notes

* Please write in proper complete sentences and consistent font, bolding, etc. The formatting should not be haphazard. Points will be taken off the overall report if this is not followed.
* The reports should not be overly vague. Someone outside the class should be able to understand the lab.
* All sections are required, although some may be shorter for smaller lab assignments.

**Overview**

[10 points]

A short overview of the Lab/Project (100-200 words) Include the following:

* The purpose (technical use of the project)
* Background
* Objective
* Important points of the project
* The key results
* Major conclusions

**Equipment**

[10 points]

All the components used in the lab, either physical or components used in Quartus. Specify which board you use, which software tools are used.

**Description**

[20 points]

Well-structured paragraphs that explain ALL the steps of the design process in chronological order This should not regurgitate the Abstract. This is a written detailed description of the steps from beginning to the final demo.

**Design Synthesis**

[20 points]

K-maps, truth tables, Boolean expressions, and a step by step explanation of the logic behind the design. This should include any math or logic needed to build your design. It should be typed in, not pictures of handwriting

**Complete Logic Diagram**

[20 points]

This should be a complete diagram of your system and how all components or logic is connected. This a top level diagram

**Results and Simulations**

[10 points]

This section includes description of your simulation and screenshot of simulation results as well as description of results on board. This should also include pictures of the board with captions describing the contents.

**Conclusion**

[10 points]

The conclusion should include the following:

a. A short summary of the description and implementation.

b. Any problems encountered during the design process.

c. Describe any limitations or flaws in the final design.

d. A brief description of anything new you have learned.

This section is specific to your experiences in doing the project. Discuss problems and setbacks.