ECE 3544: Digital Design I
Project 4 – Clock and Countdown Timer Alarm (Design project)

Student Name: Jacob Abel

Honor Code Pledge: I have neither given nor received unauthorized assistance on this assignment.

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**Grading: The design project will be graded on a 100 point basis, as shown below:**

*Manner of Presentation (30 points)*

_____ / 5 Completed cover sheet included with report

_____ / 15 Organization: Clear, concise presentation of content; Use of appropriate, well-organized sections

_____ / 10 Mechanics: Spelling and grammar

*Technical Merit (70 points)*

_____ / 5 General discussion: *Did you describe the objectives in your own words? Did you discuss your other conclusions and the lessons you learned from the assignment?*

_____ / 10 Design discussion: *Did you discuss the approach you took to designing and implementing the modules that make up your system, and how you synthesized the system from its components?*

_____ / 5 System controller state diagram: *Does your state diagram model a system that performs the required tasks? Connect this discussion to your design discussion.*

_____ / 5 System block diagram: *Connect the system block diagram to your design discussion – specifically, to a discussion of how your system employed communicating state machines to implement the tasks required by the specification.*

_____ / 5 Testing discussion: *What was your approach to formulating your test benches? How did you verify the correctness of the modules you designed? What were the results of the test of your counter's accuracy? Did you comment on the significance of these results?*

_____ / 10 Supporting figures: *Waveforms showing correct operation of the top-level module.*

_____ / 30 Validation of the final design on the DE1-SoC board

_____ **Project Grade**