Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Semester: Fall 2024

Course: EIE 331

***Objectives*:**

The objective of this lab is to implement a clock display function on the ARM development board, where the dial and hands of a clock are displayed, and the second hand updates every second.

**A)** ***Clock Configuration and Real-Time Update:***

Clock Display Implementation:

Briefly explain the logic behind displaying the clock on the LCD. Describe how the positions of the hour, minute, and second hands are calculated and drawn using geometric functions.

**B)** ***Experiment Results and Data Display:***

Real-Time Updates:

Summarize how the second hand updates every second using an internal timer and interrupts. Describe how the clock transitions between seconds, minutes, and hours, and how delays ensure accurate updates.

**C)** ***Summary and Reflection:***

Knowledge and Skills Gained:

Summarize key concepts learned, such as real-time updates and graphical display handling in embedded systems.

Challenges and Solutions:

Highlight any major challenges (e.g., timing issues or display flickering) and solutions implemented, like using techniques for smooth visuals. Suggest improvements for future work.