**Preliminary work**

**EE 447: Lab #5**

Analog to Digital converter

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**2304814 – Sec.2**

**Question 1)**

In all questions I connected 3.3V to left pin of POT, GND to right pin of POT, PE3 to middle pin of POT.

* *Main code is:*

Text

Description automatically generated with low confidence

* *Init subroutine is: (taken from lecture notes)*

Table

Description automatically generated

A picture containing graphical user interface

Description automatically generated

* *Calc subroutine is:*

A picture containing diagram

Description automatically generated

As you can understand I store data in R5. Some sample results are below:

Table

Description automatically generatedTable

Description automatically generated

Table

Description automatically generatedTable

Description automatically generated

**Question 2)**

In this question, I just changed calc subroutine. Init and main remains same.

* Calc subroutine

A picture containing diagram

Description automatically generated

Results: (R5)

**Table

Description automatically generated** **Table

Description automatically generated**

**Table

Description automatically generated A picture containing table

Description automatically generated**

**Question 3)**

In this question, I couldn’t get the difference with last question. Therefore, in this question I stored value in a register in this question. There is no update on main and init files. However, I changed results part as follows:

Diagram

Description automatically generated with low confidence

Results again in R5: (Note that left top => -1.65, right bottom => +1.65)

**Graphical user interface, table

Description automatically generated** **Graphical user interface, table

Description automatically generated**

**Graphical user interface, table

Description automatically generated** **Graphical user interface, table

Description automatically generated**

**Question 4)**

Table

Description automatically generated

Chart

Description automatically generated with medium confidence

I just modified exit subroutine in the code as you can see. DELAY100 subroutine is to delay system.

Results is:

Graphical user interface, text, application, Word, email

Description automatically generated

Note that I do not put a space character in this question.