ELE 205 Quiz 1- Feb 29, 2012 Arduino Basics

1. The arduino uno (current edition) is based on the _____RISC processor
    which has _____bytes of Flash memory, _____bytes of
    EEPROM memory and _____ bytes of RAM

2. Typically Flash is used for _____information; while RAM is used for
    _____information.

3. The a/d converter on the uno has _____channels, and are each _____bits

4. The uno system will work fine over a maximum input voltage range of from
    _____ to _____volts.

5. What does the 'void' instruction do and why is it used?

6. Give the code for calculating the heart rate in beats per minute from an
    average period time starting with the floating variable T. (comments please)

7. Show the documented code for testing if a carriage return has occurred in an ascii string.

8. A. Normal integer variables are good over the range of +32767/- 32768; what physical memory size is then used for each integer and why?

   B. What are the range of values and memory requirements for numbers with decimal points in the arduino system?

9. Give the documented code that will display 'ELE205' on the lcd but rotating to the left.

10. What will be the result if you write code to grab 2048 10 bit a/d samples into an integer variable array then multiply each element by a scalar value of 25? Explain your reasoning.