1. Examine the following C code. Show a memory map, one byte wide, which contains the correct data in the correct order. Assume that the first memory address is x00400.

   int goodstuff = 10000;
   long int funnystuff = 100000;
   unsigned int badstuff = 35000;
   float interestingstuff = 1.0;
   char messagestuff[14] = “this is good
”;

2. We use the M30262 processor for the class. How many of the following does it have?

   a. Timers
   b. RAM space
   c. Flash Space (not including virtual EEPROM)
   d. I/O lines (total)

3. a. What is the address range (in hex) of RAM usable for the stack and variables?
    b. What is the address range (in hex) of Flash usable for code and constants?

4. On page 14 of Notes 3 we show a short snippet of C code.
   a. Rewrite it to be more efficient.
   b. Convert the new C code into M30 assembly language code.

5. Consider page 28 in Notes 3.
   a. Write a small C subroutine to convert a character passed into the subroutine from upper to lower case. Ensure it is an upper case character. If it is not upper case, pass the same character back out.
   b. Convert the C code subroutine into M30 assembly language code.