Tutorial Sheet

13th August, 2012 - 16th August, 2012

1) Explain ldmfd and stmfd instructions.

2) Load the constant '0xFEOD9FFF' into register R0, using as few instructions as possible.

3) R3 = R3 LSL R4
   R1 = R2 + R3

   Design an instruction that performs the above two operations. (Hint : Augment an existing ARM instruction)

4) for (i = 0; i < 10; i++)
       A[i] = i * i;

   Convert the above code snippet to assembly. (Both pre-indexed and post-indexed addressing)

5) Design an instruction that
   - Reads data from a specified port.
   - Places read data in specified memory location.
   - Auto-increments address of specified memory location.
   - Repeats x times, where x is the contents of a specified register.