CSE2312 Computer Organization and Assembly Language Programming
Test 2 Example Study Topics

1. Know how endianness affects how numbers are written and read from memory. Understand how the LDR, LDRH, LDRSH, LDRB, LDRSB, STR, STRH, and STRB instructions work.

2. Fully understand how BL and BX work. Specifically, make sure you can determine the value loaded into the LR and PC registers as a result of a BL or BX LR instruction if the address of the instructions are given..

3. Understand how Bcond can be used with {S} sufficed instructions to perform basic branch decisions. Know what the conditions are as given in Table 1-6.

4. Be able to write assembly code similar to those in class, including the is_gt, is_even, is_positive, is_mult_of_16, andor32, and shift32 examples.

5. Be able to write assembly code similar those in Homework 3. You will not need to write the C code on the exam to test the function.

6. Be able to write assembly code similar to those in class, including strings, strings2, and strings3.

7. Be able to write assembly code similar to the string functions in Homework 4. You will not need to write the C code on the exam to test the function.

8. Understand the conventions on using Registers 4-11 and 13-14 within a function.

Please make sure to prepare your 8.5 x 11" page with hand written notes (not a photocopy or printed), verifying that the information you need from the ARM technical reference (pages 1-11 through 1-20), C calling and register convention, class notes, homework, and class code. No computers/tablets/phones are allowed during the exams as stated in the syllabus. Be sure to bring a simple calculator.