# CSE 2151 Computer Organization and Architecture

## Assignment 3

**Instructions**:

1. Write the answers in sheets of paper, scan the sheets into a single pdf document and upload. Then click Turn in or Hand in.

2. Write your name, registration number, section and put your signature.

1. Draw the diagram for hardware implementation of unsigned binary multiplication. Use it to show how to multiply the multiplicand 53 by the multiplier 42. Use minimum number of bits to represent the numbers.

   0.5+1.5M

2. Assume that an array A is stored in consecutive word locations starting from address A and an array B is stored in consecutive word locations starting from address B. Write a CISC-style program to find the product of the corresponding elements of two arrays and store it in the third array C starting at address C. Assume uniform sized arrays with the size of the array stored in memory location SIZE. Assume a byte addressable memory and word length of two bytes.

   2M

3. Consider a byte addressable memory and a word size of 2 bytes. Show how the data 9816 will be stored in memory starting from address 7500 if

   (i) Big endian assignment is used
   (ii)Little endian assignment is used

   1M