CISC 260 Machine Organization and Assembly Language

Assignment # 4

(Due: April 11, 2019)

1. Do the following exercises from textbook (Harris&Harris) Chapter 6

   Exercise 6.3 [10 pts]
   Exercise 6.5 [10 pts]
   Exercise 6.10 [10 pts]
   Exercise 6.14 [10 pts]
   Exercise 6.18 [10 pts]
   Exercise 6.31(a)(e) [10 pts]

2. [40pts] In this part of the assignment you practice how to write assembly code and use the ARM sim# to test run your code. ARM Sim# is available for download for Windows and MACs at (http://armsim.cs.uvic.ca/).

   Implement functions in assembly language. You are asked to write a program to compute the Fibonacci numbers, using recursive function calls.

```
Fib (n) {
    if (n == 0 || n == 1) return n;
    else return Fib(n-2) + Fib(n-1);
}
```

Note that your program has to use recursive function calls; you cannot convert the function into an iterative version first and then write a program implementing the iterative version. Test run your program on the ARM Sim#.

Submission: For problem 2, you need to submit the assembly code in plain text file.