

## Homework 2 (ASM FUNDAMENTALS)

**Note: Submission of this Homework Assignment is optional. It will not be graded but if you do it, you might be better prepared for exams. I will provide solution to this homework. All exams will be multiple choice on Canvas so you should know your material very well.**

The following problems are from your Irvine Textbook Ed 7

Q1. Page 92 sec 3.9.1 Do the following problems: 1,5,9,13,17,21,25,28

Q2 Sec3.9.2 Do the following problems: 8,10,11,15

SUBMISSION (OPTIONAL): Submit Electronically via *Canvas*. FileName must be according to the format specified in the course syllabus.

## SOLUTIONS

### Chapter 3

#### 3.9.1 Short Answer Questions

1.      ADD, SUB, MOV
5.      Little endian places the least significant bit in position 0, on the right side of the number. Big endian does the opposite.
9.      True
13.     Label, mnemonic, operand(s), comment
17.     You do not use numeric addresses (offsets) for variables because the addresses would change if new variables were inserted before the existing ones.
21. PROTO directive allows creation of a prototype for a procedure that already exists. It is used for defining a program you want to call outside your own program
25. dataW SDWORD ?
28. dataB SBYTE ?

#### 3.9.2 Algorithm Workbench

8.      `firstFive BYTE "ABCDE"`
10.     `wArray WORD 1000h, 2000h, 3000h`
11.     `favColor BYTE "blue",0`
15.     `21h, 43h, 65h, 87h`

