CS1203 Assignment 6

Fall 2020

Due **Monday November 2nd** before **4pm Atlantic** in the Desire2Learn dropbox.

Note: All answers need to be contained in a single document using a word processor. The first page of the document must be a title page (see sample posted in D2L). Once you have finished your document, save the document as a PDF file. **Submit the PDF file** to the appropriate drop box on Desire2Learn. Name your document as follows: **CS1203_YourName_A6**

1. Write the instructions in words that will add the value 0x0D45 to a word stored in memory at the address 0x00FA and stores the result at the memory location 0x00F6. The using the Pep/9 machine language, write the instructions in binary and hexadecimal.

2. Given the following state of memory (in hexadecimal), answer the following questions for the instructions given in Pep/9 machine language.

Memory Address:	Memory Contents:
0031	0B
0032	A3
0033	08
0034	3F

   a. What are the contents of the A register in binary after the execution of the instruction:
   1101 0001 0000 0000 0011 0001

   b. What are the contents of the A register in binary after the execution of the instruction:
   1100 0001 0000 0000 0011 0011

   c. What are the contents of the A register in binary after the execution of the two instructions:
   1101 0001 0000 0000 0011 0010
   0110 0000 0000 0000 0011 0100

   d. What are the contents of the A register in binary after the execution of the two instructions:
   1101 0000 0000 0000 0011 0001
   0110 0001 0000 0000 0011 0011

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3. Given the following state of memory (in hexadecimal), answer the following questions for the instructions given in Pep/9 assembly language.

Memory Address:	Memory Contents:
00F1	4A
00F2	D1
00F3	29
00F4	C6

   a. What are the contents of the A register in binary after the execution of the instructions:
   LDBA 0x00F1, i
   ADDA 0x00F2, d

   b. What are the contents of the A register in binary after the execution of the instructions:
   LDWA 0x00F3, d
   ADDA 0x0104, i