**CSCI240 – Computer Organization and Assembly Language Programming**

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**Assignment:** Patt and Patel, Chapter 4: 5, 6, 7, 8, 10, 11, 12, 13, 15, 16

5.

a) Location 3 contains the value 0

Location 6 contains the value 301

1111 1110 1101 0011

0000 0001 0010 1100

0000 0001 0010 1101

301

b) (1)

Location 0: 0001 1110 0100 0011 = 7747

Location 1: 1111 0000 0010 0101 = -37

(2)

Location 4: 0000 0000 0110 0101 = ‘e’ or 101

(3)

Location 6: 1111 1110 1101 0011

Location 7: 0000 0110 1101 1001

6. The two components of an instruction are the opcode and the operands. The opcode contains what the instruction does. The operands are what the instruction will operate on.

7.

8.