Finishing up last time

What happens with command:

BADE
Some new questions

1. Which of the following instructions (as described in the language description table) changes the contents of a memory cell?
   A. 10AB  B. 20AB  C. 30AB  D. 40AB

2. Which of the following instructions (as described in the language description table) places 00000000 in register A?
   A. 1A00  B. 2A00  C. 3A00  D. 200A

3. Which of the following instructions (as described in the language description table) will not change the contents of register 5?
   A. 1508  B. 2508  C. A503  D. A508

4. Which of the following instructions (as described in the language description table) changes the contents of register 7?
   A. 4077  B. 4075  C. 4057  D. 37BB
The bit pattern 001010101101001011 may represent

I. instructions
II. data

A. I only
B. II only
C. I and II
D. Neither I or II
Fill-in-the-blank/Short-answer Questions

1. If register 0 contains the pattern 01101001 before executing the instruction A003 (see the language description table), what bit pattern will be in register 0 after the instruction is executed?
2. If registers 5 and 6 contain the bit patterns 5A and 58 respectively, what bit pattern will be in register 4 after executing the instruction 5456? (See language description table.)
3. Suppose registers E and F contained AA and CC, respectively. What bit pattern would be in register D after executing each of the following instructions (see language description table)?

A. 7DEF

B. 8DEF

C. 9DEF
4. Encode each of the following commands in terms of the machine language described in the language description table.

   A. _______ LOAD register 7 with the value A5.

   B. _______ LOAD register 7 with the contents of the memory cell at address A5.

   C. _______ ADD the contents of registers 5 and 6 as thought they were values in two’s complement notation and leave the result in register 4.

   D. _______ OR the contents of registers 5 and 6, leaving the result in register 4.
5. The following table shows a portion of a machine's memory containing a program written in the language described in the language description table. Answer the questions below assuming that the machine is started with its program counter containing 00.

<table>
<thead>
<tr>
<th>address</th>
<th>content</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>21</td>
</tr>
<tr>
<td>01</td>
<td>0B</td>
</tr>
<tr>
<td>02</td>
<td>14</td>
</tr>
<tr>
<td>03</td>
<td>04</td>
</tr>
<tr>
<td>04</td>
<td>C0</td>
</tr>
<tr>
<td>05</td>
<td>00</td>
</tr>
</tbody>
</table>

A. What bit pattern will be in register 4 when the machine halts?

___________

B. What bit pattern will be in register 1 when the machine halts?

___________
6. The following table shows a portion of a machine's memory containing a program written in the language described in the language description table. Answer the questions below assuming that the machine is started with its program counter containing 00.

<table>
<thead>
<tr>
<th>address</th>
<th>content</th>
<th>address</th>
<th>content</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>10</td>
<td>07</td>
<td>00</td>
</tr>
<tr>
<td>01</td>
<td>02</td>
<td>08</td>
<td>C0</td>
</tr>
<tr>
<td>02</td>
<td>24</td>
<td>09</td>
<td>00</td>
</tr>
<tr>
<td>03</td>
<td>04</td>
<td>0A</td>
<td>C0</td>
</tr>
<tr>
<td>04</td>
<td>B4</td>
<td>0B</td>
<td>00</td>
</tr>
<tr>
<td>05</td>
<td>0A</td>
<td>0C</td>
<td>C0</td>
</tr>
<tr>
<td>06</td>
<td>C0</td>
<td>0D</td>
<td>00</td>
</tr>
</tbody>
</table>

A. What bit pattern will be in register 0 when the machine halts?

___________

B. What bit pattern will be in register 4 when the machine halts?

___________

C. What bit pattern will be in the program counter when the machine halts?

___________