Assignment 9

Due on 2020-11-16, 23:59 IST

This assignment consists of the following tasks:

1. From the following code in microcontroller assembly language, what will be the output on 7 Segment Displays? IF OUT is not 0x0000 with DB1&0 in the 1 point test comment of even task?

```assembly
// 7 Segment Display
// Digits in BCD
// Digits in BCD

// 7 segment display code
// Output: 0000 0001 0010 0011 0100 0101 0110 0111 1000 1001 1010 1011 1100 1101 1110 1111
// (0-9) in BCD
\n\n// Display number digit
\n\n// Display digit 0
\n\n// Display digit 1
\n\n// Display digit 2
\n\n// Display digit 3
\n\n// Display digit 4
\n\n// Display digit 5
\n\n// Display digit 6
\n\n// Display digit 7
\n\n// Display digit 8
\n\n// Display digit 9
\n\n// \n```

2. Which of the following is the correct matching of commands for the 7 Segment Displays? 1 point

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command A</td>
<td>Command B</td>
</tr>
<tr>
<td>Comment 1</td>
<td>Comment 2</td>
</tr>
<tr>
<td>Comment 3</td>
<td>Comment 4</td>
</tr>
</tbody>
</table>

3. Which of the following low power modes, DCO's DC generator is disabled? 1 point

- SMCLK
- LPM1
- LPM0
- LPM4

4. Which one of the following must be connected to Power-down Mode (PDEN) in the microcontroller? 1 point

- Comments 1 and 4
- Comments 3 and 4
- Comments 3 and 5
- Comments 3 and 6

5. Which of the following character LCD display, any character to be displayed on LCD is set as ______ character? 1 point

- A
- B
- C
- D

6. The minimum number of pins of microcontroller are utilized for interfacing a 7 Segment? 1 point

- 4 pins
- 8 pins
- 16 pins
- 32 pins

7. If the system is running at 1MHz clock rate, what is the maximum delay that you can get from one time? 1 point

- 1ns
- 2ns
- 4ns
- 8ns

8. Which of the following is the correct matching of commands for the 7 Segment Displays? 1 point

- Comment 1 and 4
- Comment 3 and 4
- Comment 3 and 5
- Comment 3 and 6

9. Which of the following low power modes, the power pins are connected to PDEN pins of the microcontroller? Which character should be used to these data pins through? 1 point

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCD 0</td>
<td>LCD 0</td>
</tr>
<tr>
<td>LCD 1</td>
<td>LCD 1</td>
</tr>
<tr>
<td>LCD 2</td>
<td>LCD 2</td>
</tr>
</tbody>
</table>

10. If the system is running at 1MHz clock rate, what is the maximum delay that you can get from one time? 1 point

- 1ns
- 2ns
- 4ns
- 8ns

11. Which of the following low power modes, the power pins are connected to PDEN pins of the microcontroller? Which character should be used to these data pins through? 1 point

- Comment 1 and 4
- Comment 3 and 4
- Comment 3 and 5
- Comment 3 and 6