

Quiz 4 - 9/15/08

P1

Minimize

$$F = ab'c + abc' + abc$$

Solution:

See 9/15/08 notes

Scoring: ~~10~~ pts total

8 points each step

From P31 of the notes:

Write the sum of terms for

Segment d of the BCD to

7 segment converter

30 points

$$d = w'x'y'z' + w'x'y'z + w'x'yz + wx'y'z + \\ w'xyz' + wx'y'z' + wx'yz$$

4 points for each correct minterm

2 points for  $d =$

Quiz 4 Continued 9/15/08

Now imagine adding hex P2 digits to the 7 segment display:

A B C D E F

Write the truth table for the last 6 lines of the Table:

|   | a | b | c | d | e | f | g |
|---|---|---|---|---|---|---|---|
| A | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| B | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| C | 1 | 0 | 0 | 1 | 1 | 1 | 0 |
| D | 0 | 1 | 1 | 1 | 0 | 1 | . |
| E | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| F | 1 | 0 | 0 | 0 | 1 | 1 | 1 |

5 points  
each line  
(30 total)