

Quiz 3 – EECS 270, Spring '13

Name: _____ unique name: _____

Honor code:

I have not given or received aid on this quiz, nor have I observed anyone else doing so:

Sign here: _____

This quiz is graded out of 100 points and is worth about 3% of your class grade. You will have 20 minutes for this quiz. ***Closed everything including calculators!*** To receive partial credit, work must be shown.

1. Find the minimum sum-of-products of $\sum_{(a,b,c,d)=(0,1,2,3,7,9,11,14)}$ using a K-map. Show your work and clearly circle your answer. **[40]**

2. Find the minimum product-of-sums of $\sum_{(w,x,y,z)=(1,2,3,5,8,9,11,15)}$ using a K-map. Show your work and clearly circle your answer. **[30]**
3. Design a state transition diagram which has one input “X” and one output “Y”. The output should go high if one or more of the last two inputs have been a “1”, otherwise the output should be zero. **[30, 10 points are for finding a minimal solution]**