Quiz 3 – EECS 270, Spring '22

Name: key unique name: key

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.

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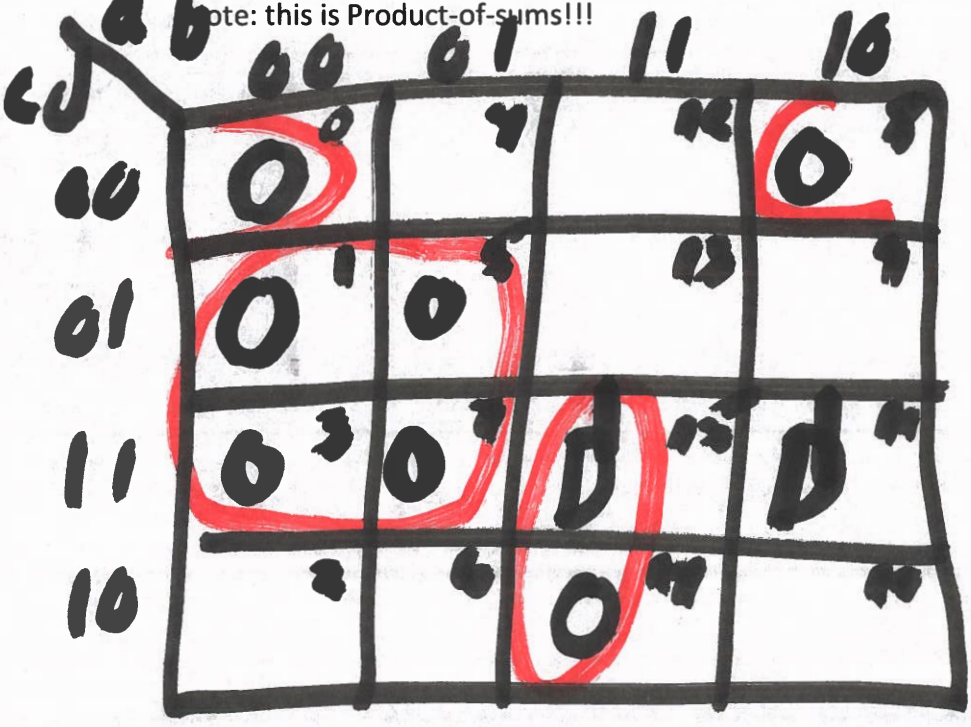
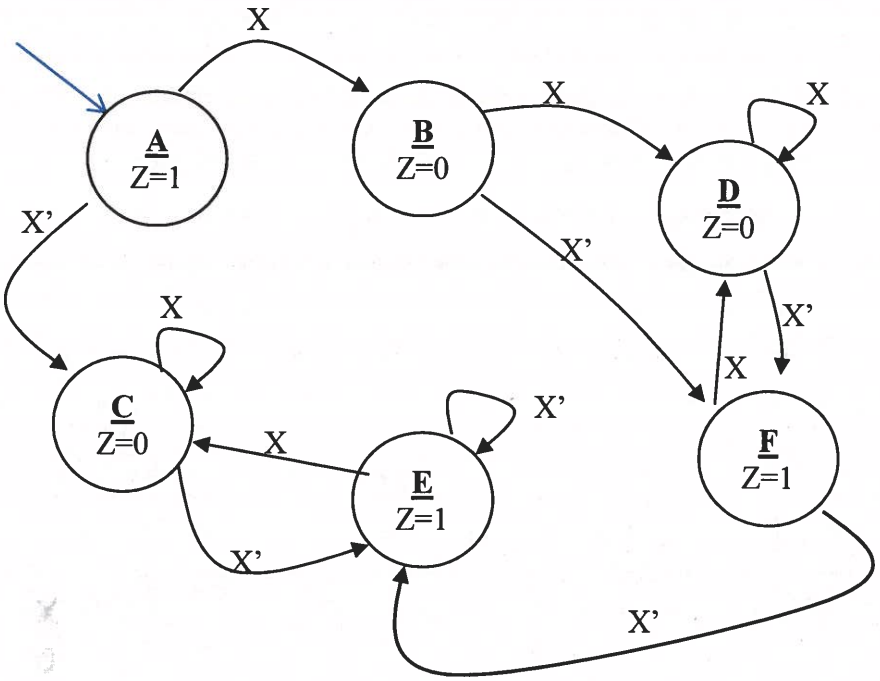
1. Find the minimum ***product-of-sums*** of $\Sigma_{(a,b,c,d)}=(2,4,6,9,10,12,13)+d(11,15)$ using a K-map. Show your work and clearly circle your answer. **[40]**
   Note: this is Product-of-sums!!!



$$(b+c+d)\cdot(a+\bar{d})(\bar{a}+\bar{b}+\bar{c})$$

2. Reduce the number of states in the state transition diagram as much as possible using the partitioning method. Show your work and draw the reduced state diagram. **[60 points]**



Final result has 3 states: A, BCD, EF.