CAD for VLSI Design

Homework #1 (Due: Mar. 26)

- Please show the step-by-step procedure to generate all prime implicants of the Boolean function F(A,B,C,D)=∑(1,3,5,7,9,15), don't care d(A,B,C,D)=∑(2,4,11) using Quine-McCluskey method.
- 2. For the circuit shown below:
 - (a) Assume the delay time of all gates is equal to 1. Please show the longest and shortest paths individually along with their delay values. Please also briefly explain your method to calculate the delay values.
 - (b) Assume the delay time of inverter is 1, the delay time of XOR gate is 3, and the delay time for other gates is 2. Please show the longest and shortest paths individually along with their delay values. Please also briefly explain your method to calculate the delay values.

