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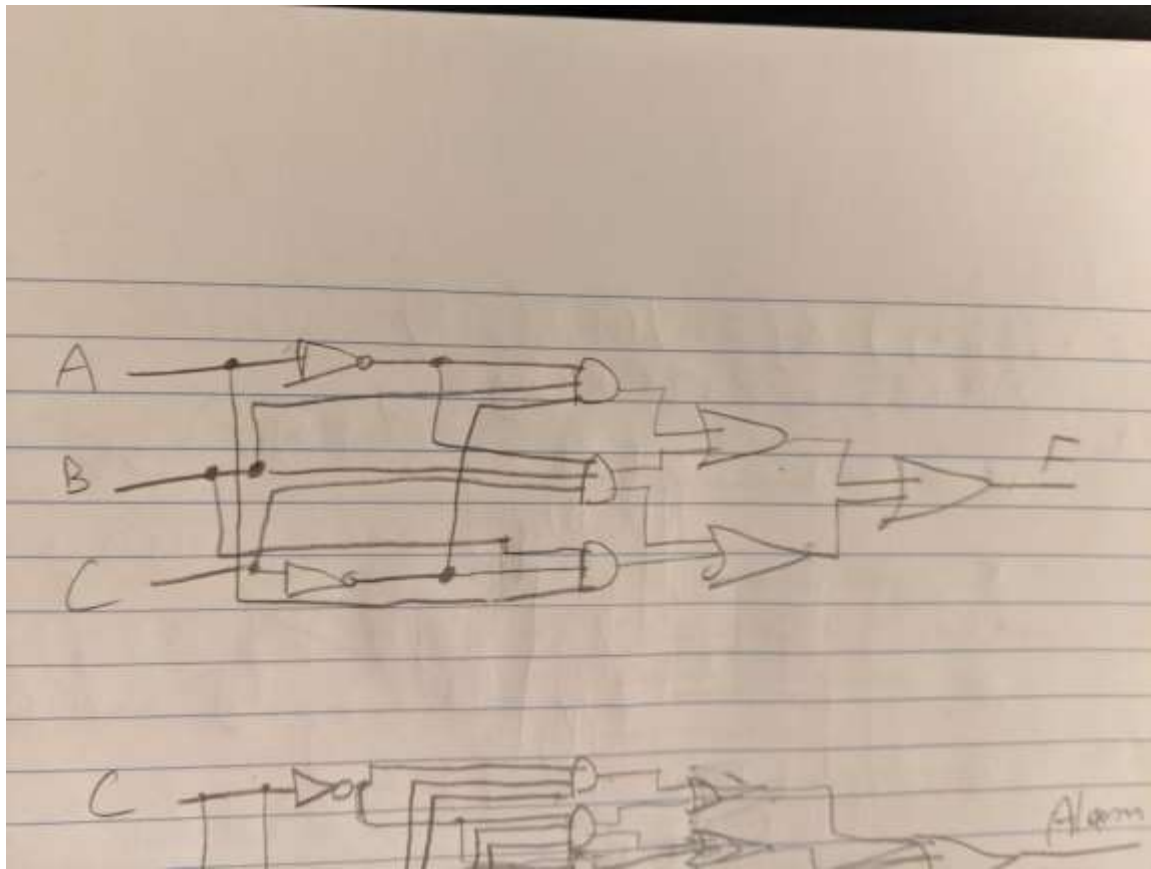
PRELAB:

Q1. Read section 3.0 and fill in the truth table below for *lab2step1*. Then use it to construct the SOP expression and draw the resulting circuit using logic gates.

A	B	C	F
0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	0
1	0	0	1
1	0	1	0
1	1	0	1
1	1	1	0

SOP Logic Expression: $\neg A \neg B C + \neg A B C + A B \neg C = F$

Circuit Diagram:

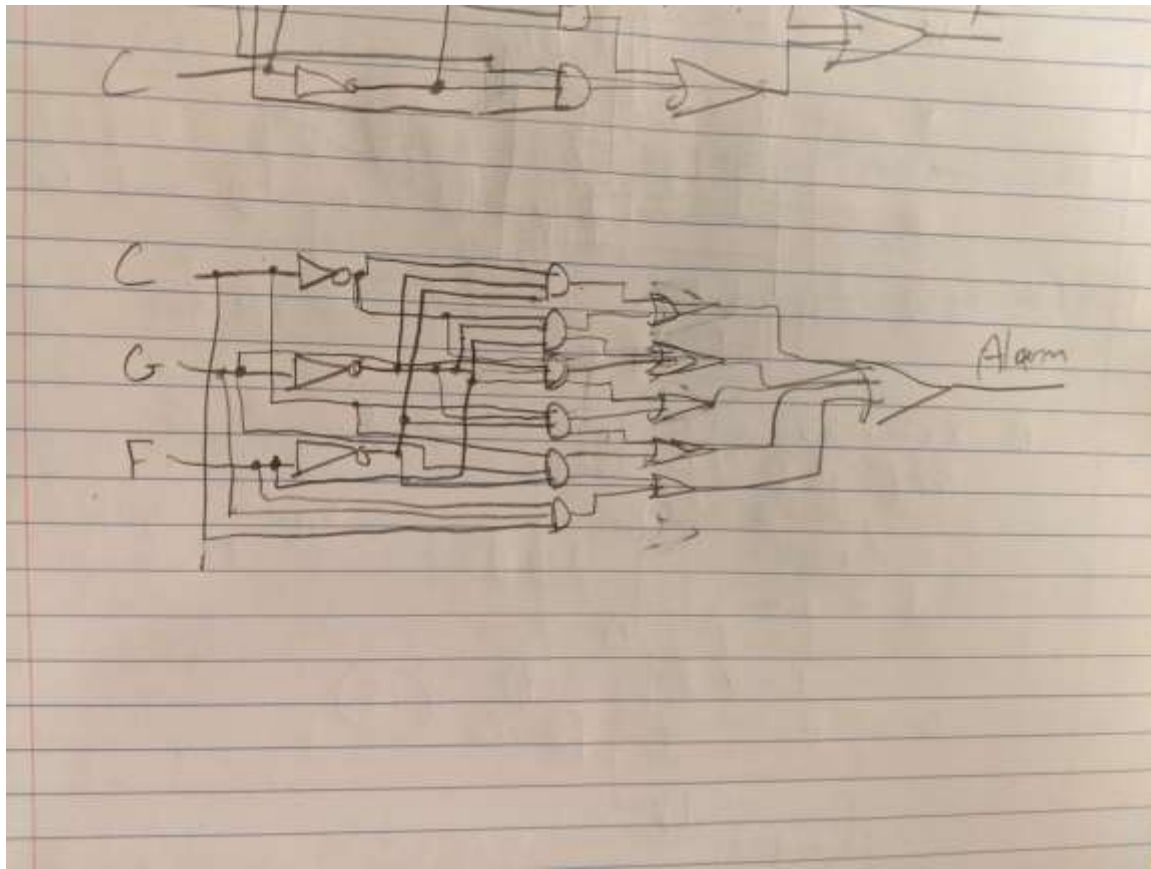


Q2. Read section 4.0 and fill in the truth table below for *lab2step2*. Then use it to construct the SOP expression and draw the resulting circuit using logic gates.

Cabbage	Goat	Wolf	Alarm
0	0	0	1
0	0	1	1
0	1	0	0
0	1	1	1
1	0	0	1
1	0	1	0
1	1	0	1
1	1	1	1

SOP Logic Expression: $\neg C \neg G \neg F + \neg C \neg G F + \neg C G \neg F + C \neg G \neg F + C \neg G F + C G \neg F + C G F = \text{Alarm}$

Circuit Diagram:



LAB:

3.0 ModelSim results demonstrate a correct circuit.

4.0 ModelSim results demonstrate a correct circuit.