CME1214 Logic Design Lab 1

Preliminary Work

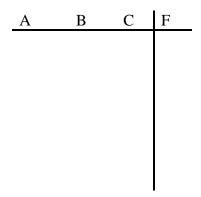
- Study Boolean Algebra and DeMorgan Theorems.
- Use Quartus II software to implement your designs. Simulate your circuits and verify that they work correctly using the waveform.
- Prepare a preliminary report which should include logic diagrams, waveforms and all other preliminary works.
- The preliminary work and report are expected from each student.
- See the Instructions at the end of the document.

Equipments

- Necessary gates for the experiments (AND IC 7408, OR IC 7432, NOT IC 7414, XOR IC 7486, NAND IC 7400 etc.)
- Breadboard, connection cables
- Any other equipments necessary for the experiments

Experiment 1

Construct the truth table and implement the equivalent logic circuit of $\overline{(A \lor B)} \land C$



Experiment 2

Design OR(A+B) gate entirely from **NAND** gates.

Truth Table for NAND Gate		
A	В	F
0	0	1
0	1	1
1	0	1
1	1	0

Instructions:

- You should only <u>one</u> "pdf" file that contains both your prelab screenshots and photos of experiments.
- The file path of your screenshots should be visible, otherwise your work won't get any point.
- Your student card should in the photos of the experiments, otherwise your work won't get any point.

Your "pdf" file name should be "studentNo_name_surname.pdf"