## CME2003 Logic Design Lab 1

### **Preliminary Work**

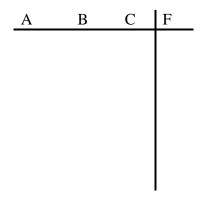
- Study Boolean Algebra and DeMorgan Theorems.
- Use Altera Max+Plus II software to implement your designs. Simulate your circuits and verify that they work correctly using the waveform.
- Prepare a preliminary report which should include logic diagrams, waveforms and all other preliminary works.
- The preliminary work and report are expected from each student **individually**.
- Bring the relevant datasheets with you to the lab, 1 per each group.

#### **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  $\overline{(A \vee B)} \wedge C$ 



# **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