ECE 223 LAB EXPERIMENT 5

Preparation Part:

a-) Design a logic circuit with three inputs x,y,z and one output f. If binary input equals 2,4,6 binary output equals 1; otherwise output are zero. For the circuit you have designed write the explicit expressions using Karnaugh map, implement the function using only inverters and NAND gates. Draw truth table. Draw Karnaugh Map. Draw the logic circuit.

b-) Design the function $F(x,y,z)=\sum(1,5,6)$. For the circuit you have designed write the explicit expressions using Karnaugh map, implement the function using only inverters and NOR gates. Draw truth table. Draw Karnaugh Map. Draw the logic circuit.

Experiment Part:

1) Set up the logic circuit in part b.