

Cal Poly Pomona

ECE Dept.

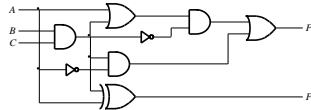
Dr. Rafi

ECE 2300L

LAB # 2

1. Write the Boolean expression for F . Derive the truth table, and determine the simplified expression for F .

Express the following functions F_1 and F_2 in terms of the inputs A , B , and C . What is the relationship between F_1 and F_2 ?



2. Using identities, express the following functions F_1 and F_2 in terms of the input A, B , and C . What is the relationship between F_1 and F_2 ?

LAB

Implement the circuit in the above figure. Demonstrate its operation using switches and LEDs etc. as needed.

POSTLAB

1. Convert the packed BCD number 561374 to unpacked BCD.
What is the ASCII equivalent of the packed BCD number?
2. Name one application where Gray code is used.
3. Show analytically that $A \oplus (A \oplus B) = B$
4. What do you mean by the word “Design a logic circuit”?