

# UNIT-3

## Lecture-5

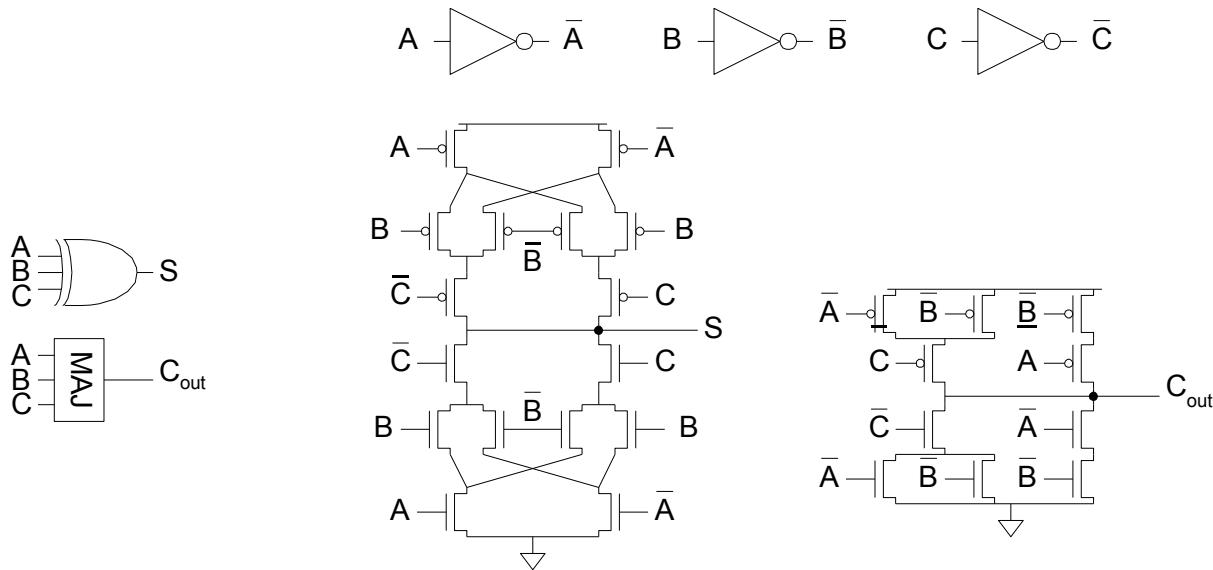
### **Combinational Circuits**

# Full Adder Design I

- Brute force implementation from eqns

$$S = A \oplus B \oplus C$$

$$C_{\text{out}} = \text{MAJ}(A, B, C)$$



# Carry-Skip Adder

- Carry-ripple is slow through all N stages
- Carry-skip allows carry to skip over groups of n bits
  - Decision based on n-bit propagate signal

