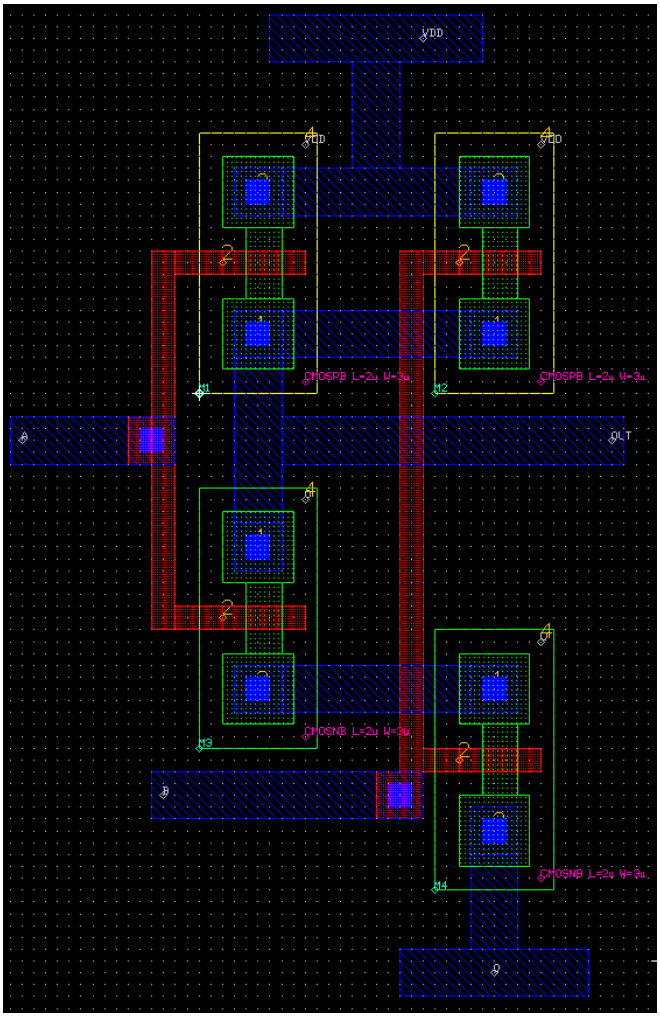
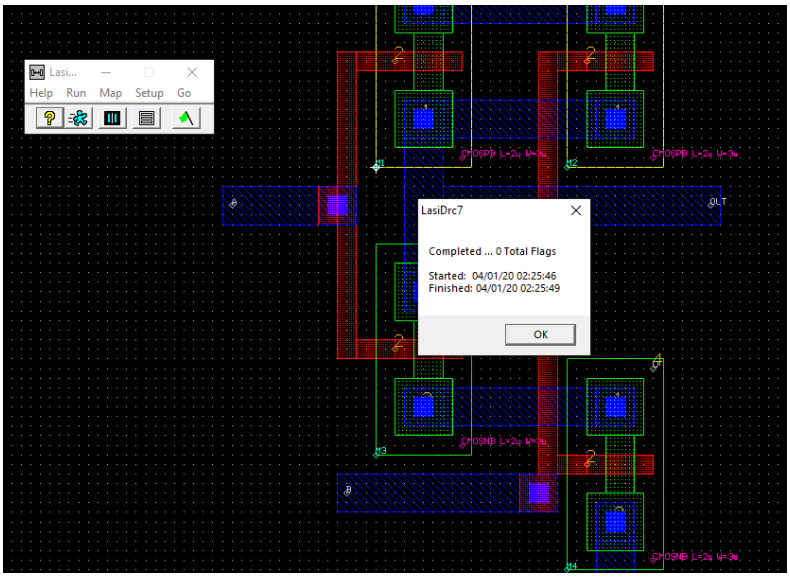
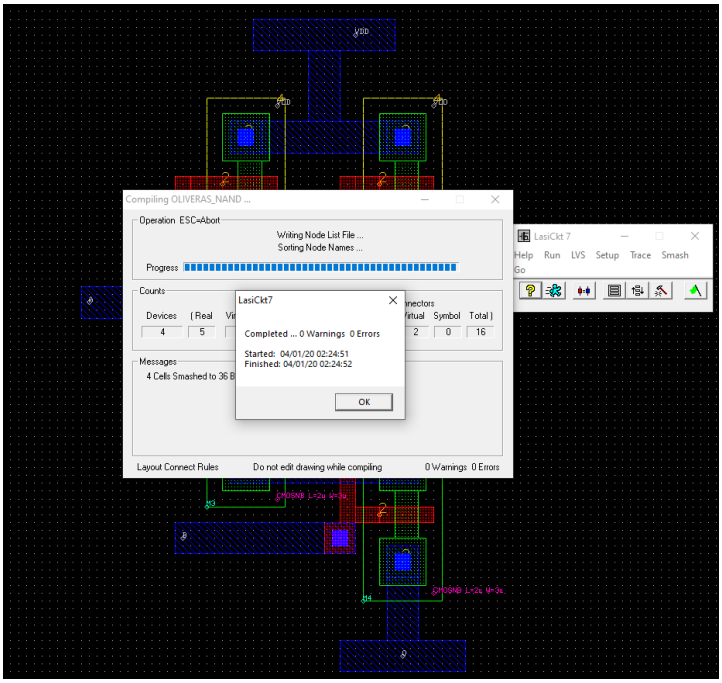
Assignment 2 (Lab 2) – NAND 2-INPUT Design



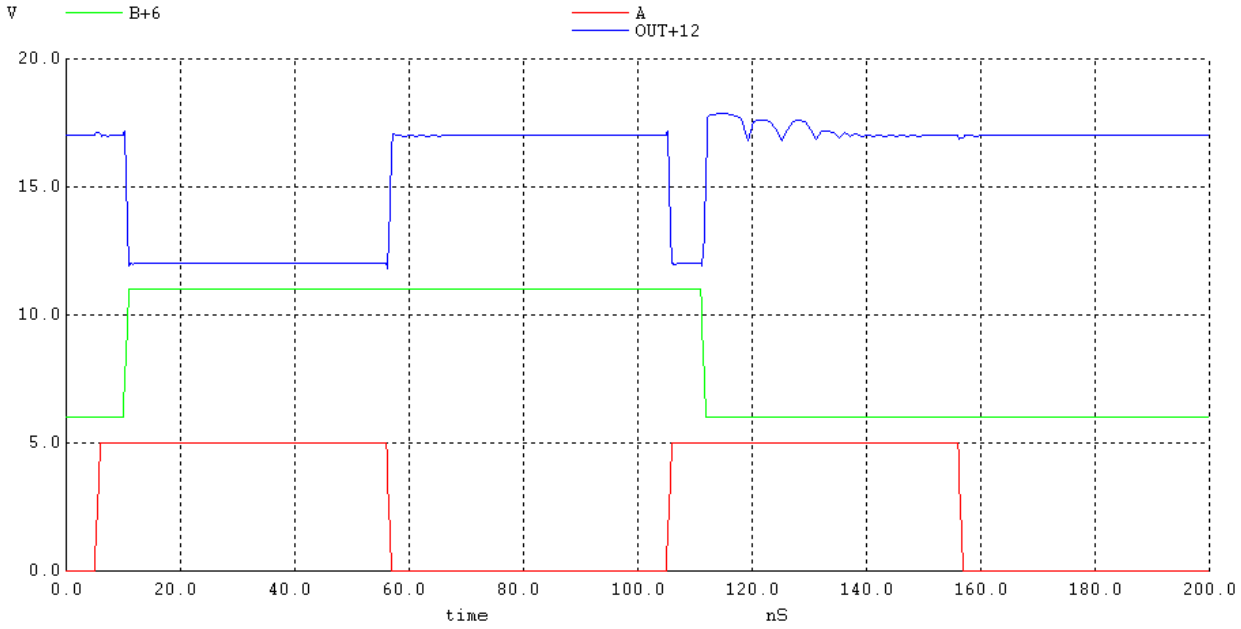
LASIDRC



LASICKT



Waveforms



HDR File

V1 VDD 0 DC 5V AC 0 0

V2 A 0 DC 0 AC 0 0 PULSE (0 5V 5ns 1ns 1ns 50ns 100ns)

V3 B 0 DC 0 AC 0 0 PULSE (0 5V 10ns 1ns 1ns 100ns 200ns)

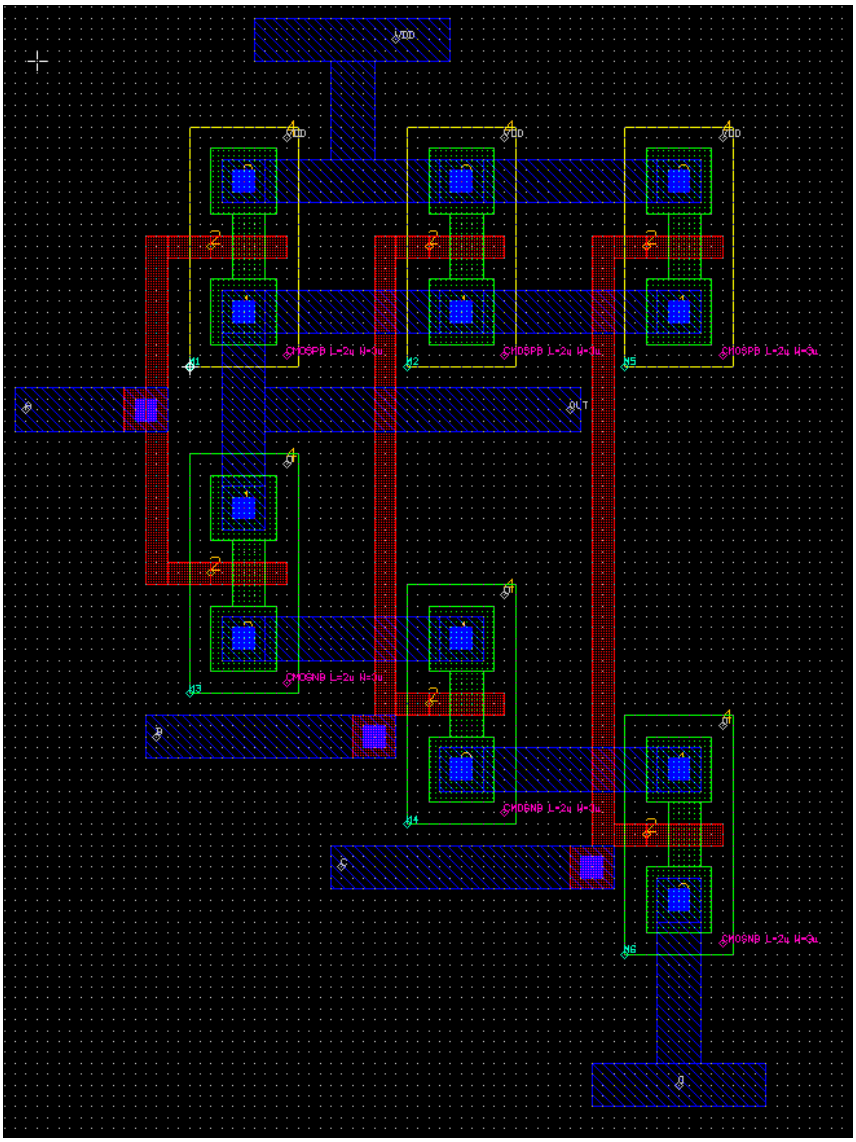
.options reltol=0.1 abstol=10u vntol=10mv

.probe

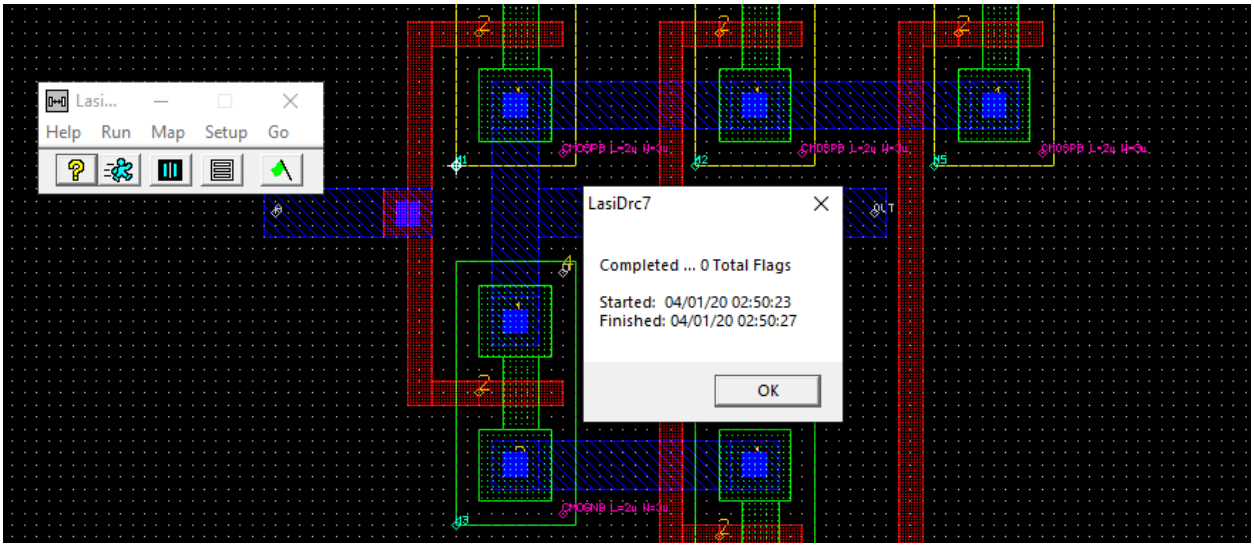
.tran 1ns 200ns

.plot tran all

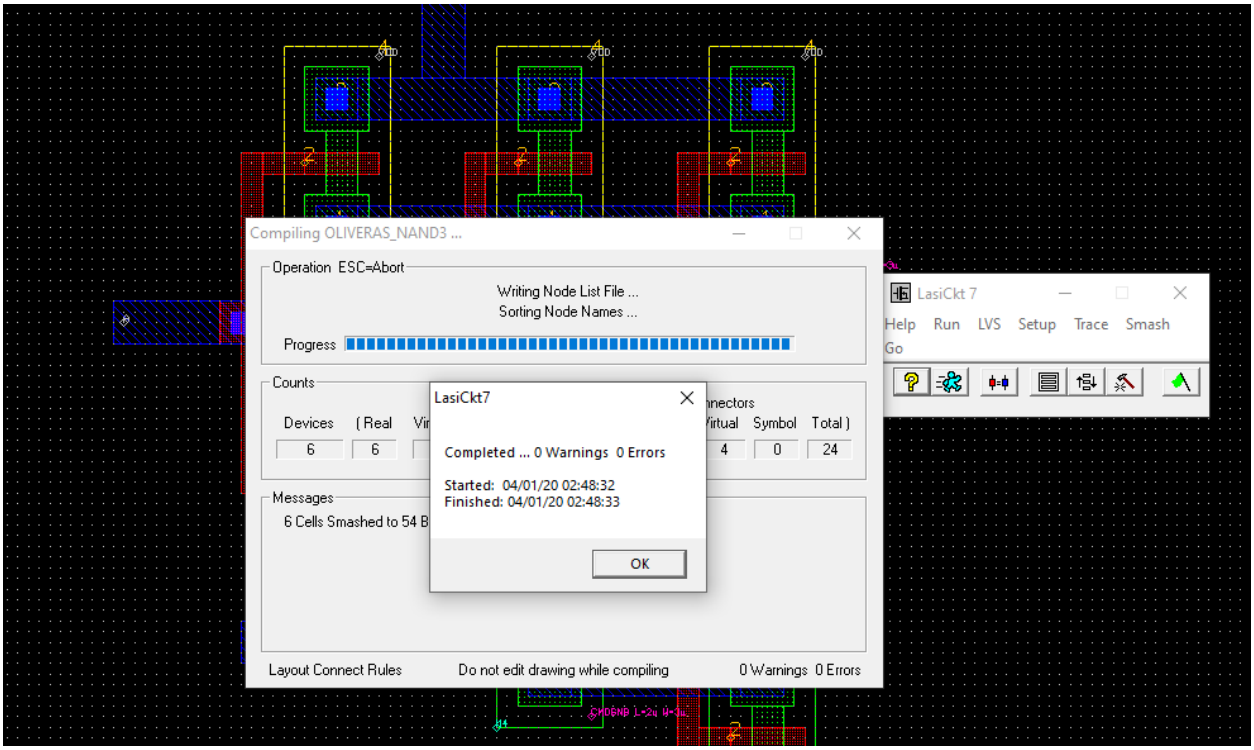
NAND 3-INPUT Design



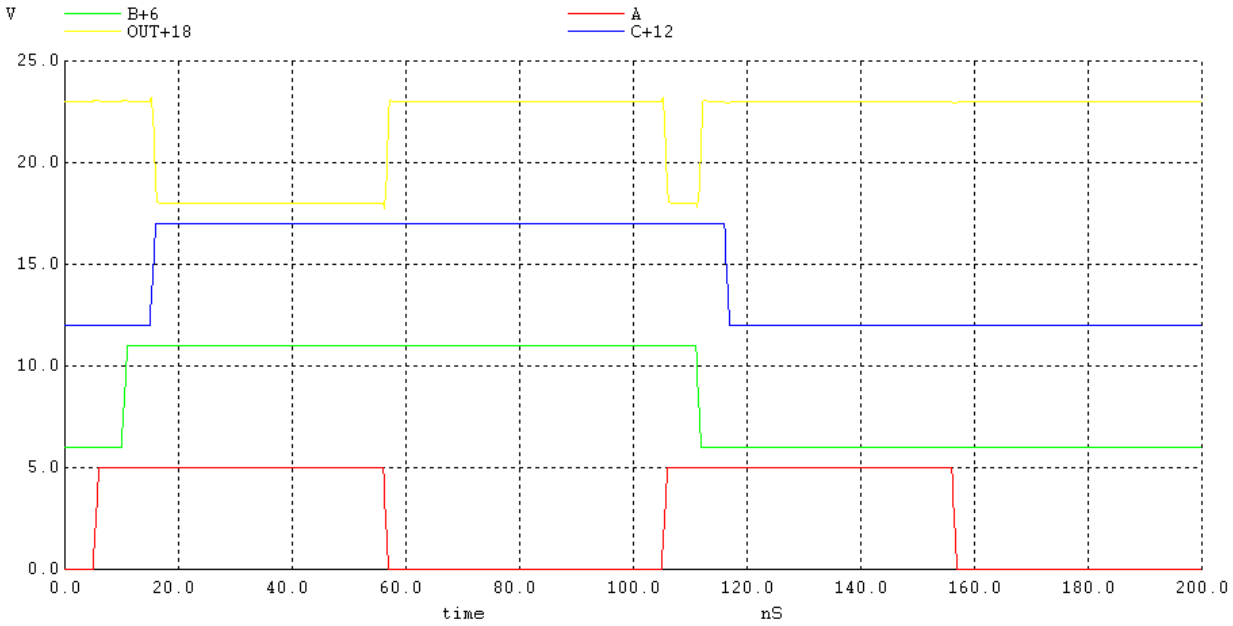
LASIDRC



LASICKT



Waveforms



HDR File

V1 VDD 0 DC 5V AC 0 0

V2 A 0 DC 0 AC 0 0 PULSE (0 5V 5ns 1ns 1ns 50ns 100ns)

V3 B 0 DC 0 AC 0 0 PULSE (0 5V 10ns 1ns 1ns 100ns 200ns)

V4 C 0 DC 0 AC 0 0 PULSE (0 5V 15ns 1ns 1ns 100ns 200ns)

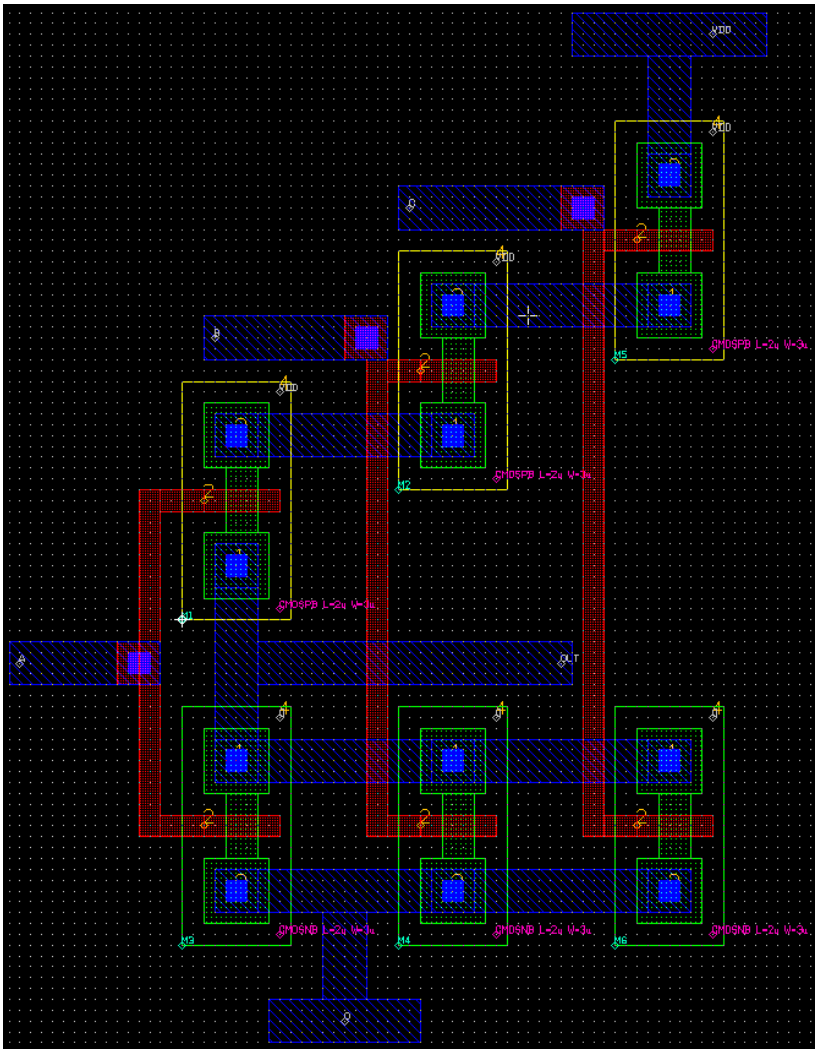
.options reltol=0.1 abstol=10u vntol=10mv

.probe

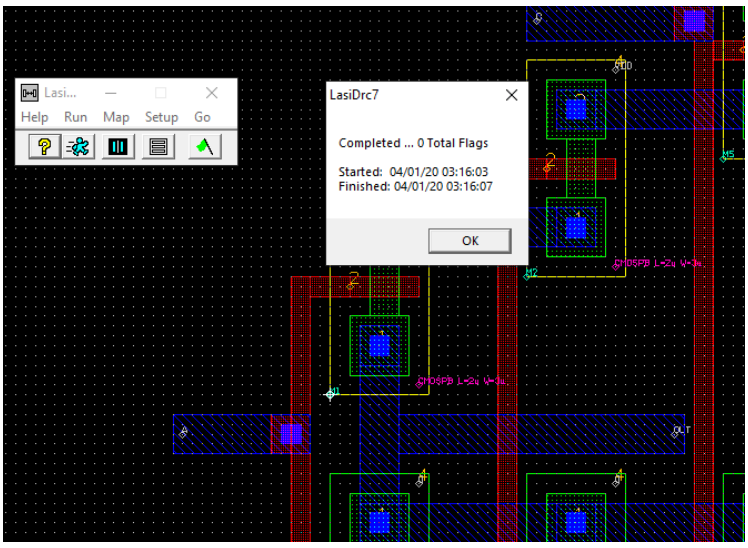
.tran 1ns 200ns

.plot tran all

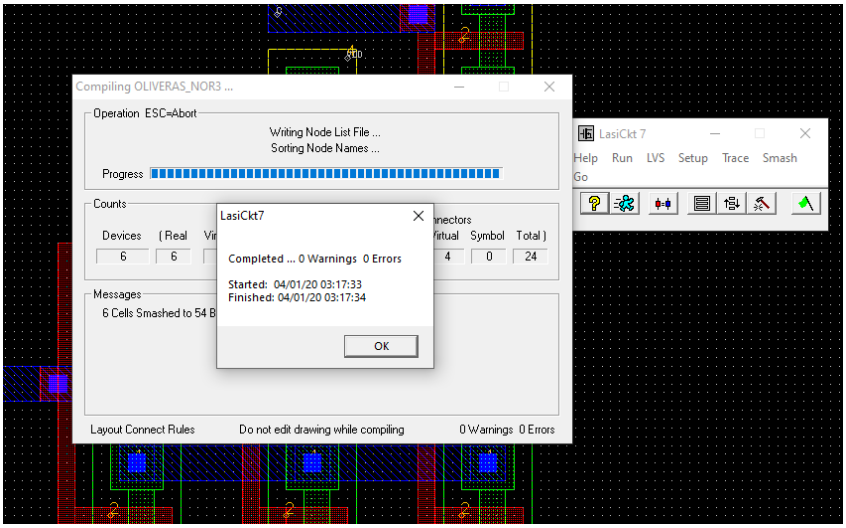
NOR 3-INPUT Design



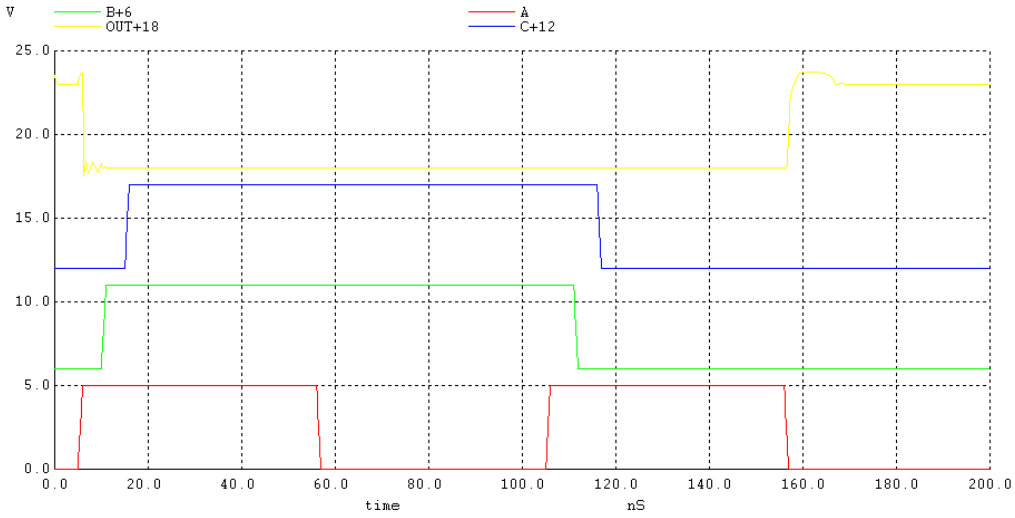
LASIDRC



LASICKT



Waveforms



HDR File

V1 VDD 0 DC 5V AC 0 0

V2 A 0 DC 0 AC 0 0 PULSE (0 5V 5ns 1ns 1ns 50ns 100ns)

V3 B 0 DC 0 AC 0 0 PULSE (0 5V 10ns 1ns 1ns 100ns 200ns)

V4 C 0 DC 0 AC 0 0 PULSE (0 5V 15ns 1ns 1ns 100ns 200ns)

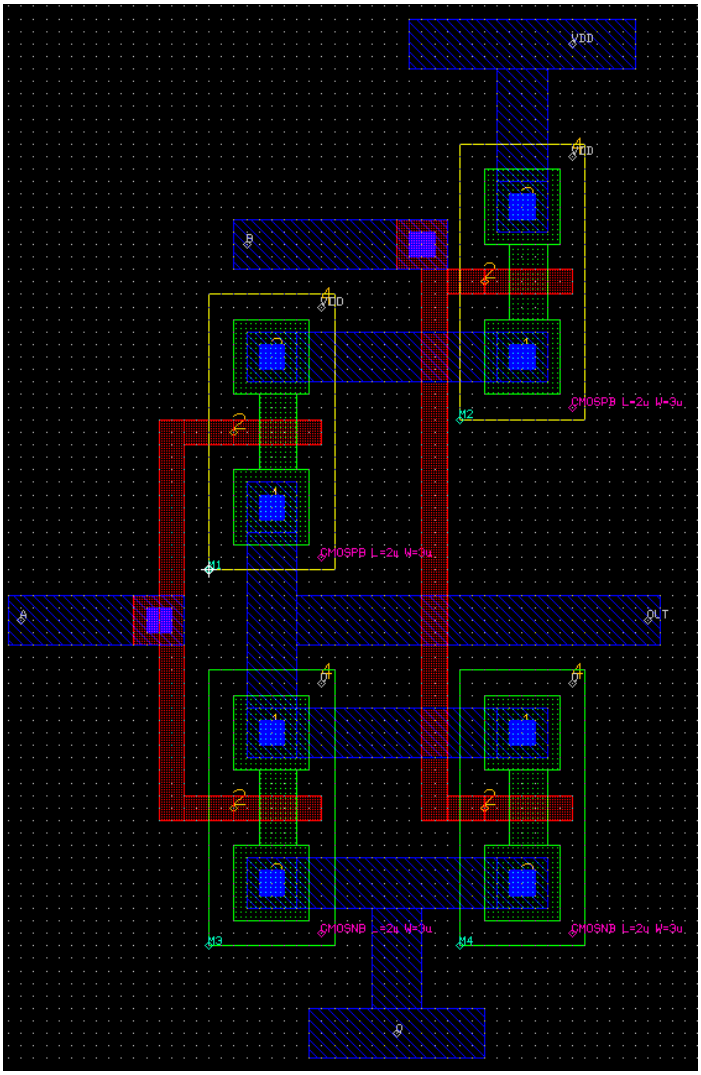
.options reltol=0.1 abstol=1u vntol=1mv

.probe

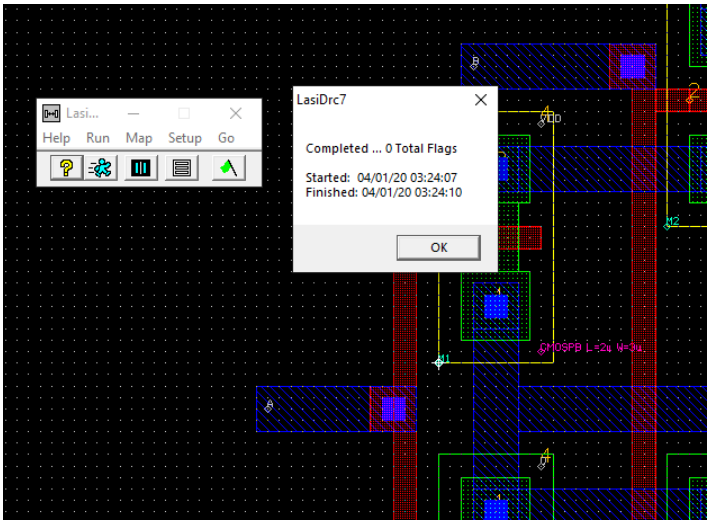
.tran 1ns 200ns

.plot tran all

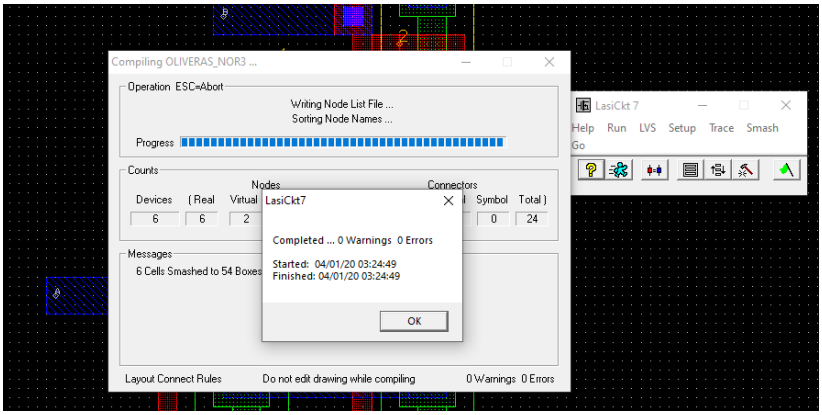
NOR 2-INPUT Design



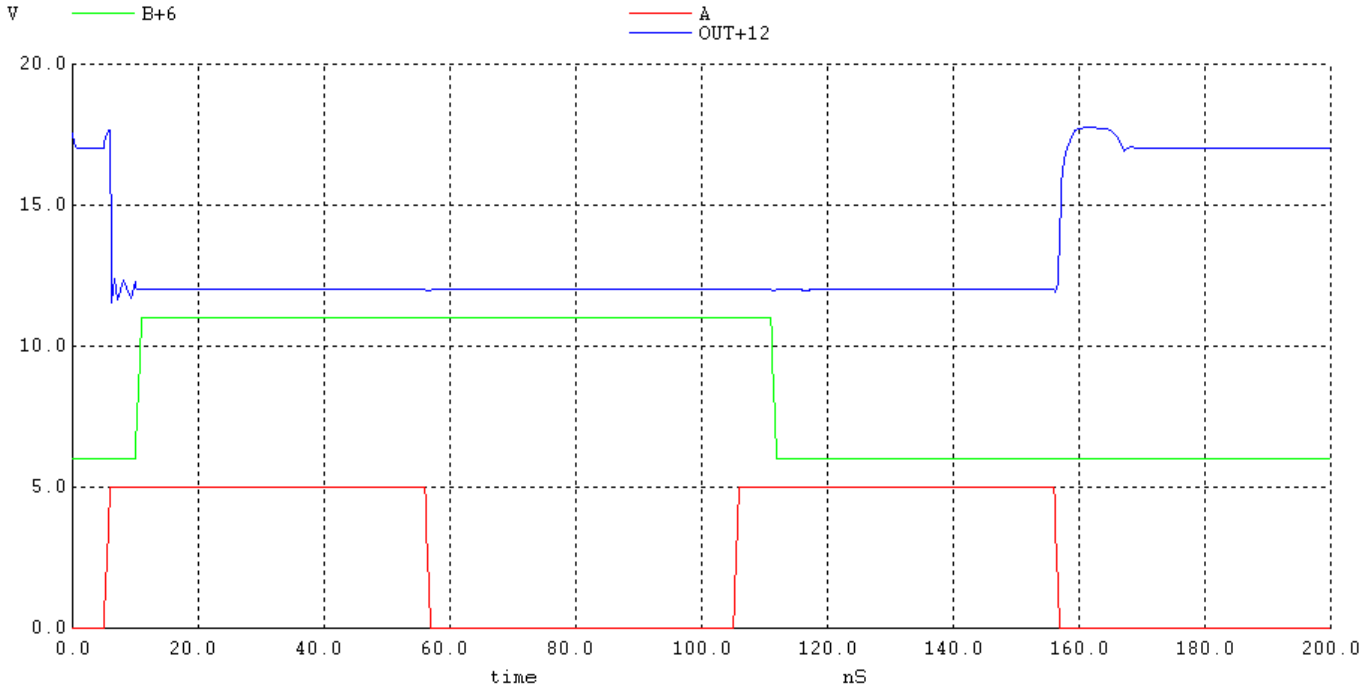
LASIDRC



LASICKT



Waveforms



HDR File

V1 VDD 0 DC 5V AC 0 0

V2 A 0 DC 0 AC 0 0 PULSE (0 5V 5ns 1ns 1ns 50ns 100ns)

V3 B 0 DC 0 AC 0 0 PULSE (0 5V 10ns 1ns 1ns 100ns 200ns)

.options reltol=0.1 abstol=1u vntol=1mv

.probe

.tran 1ns 200ns

.plot tran all