Lab 5
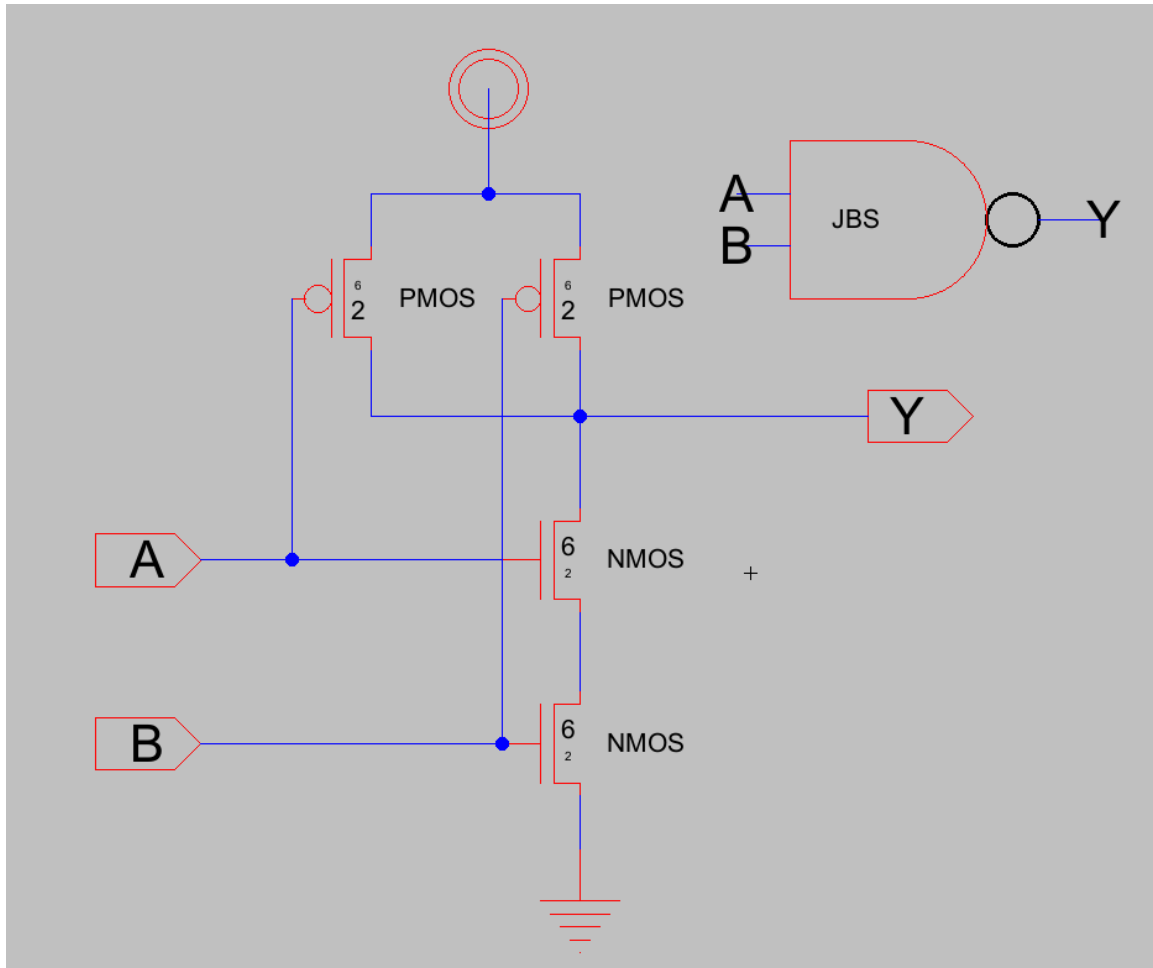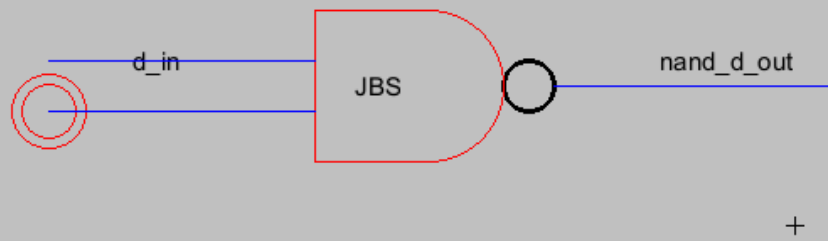
Name: Jameson Stanley   Date: October 26, 2025

vdd vdd 0 dc 5
vin d_in 0 pulse(0v 5v 10n 1n 1n 40n 40n)
.tran 0 40n
.include C:\Users\Jameson\Desktop\Lab5_VLSI\C5_models.txt

PMOS

NMOS

A —|JBS|>○— Y

A

Y

d_in   JBS   nand_d_out

vdd vdd 0 dc 5
vin d_in 0 pulse(0v 5v 10n 1n 1n 40n 40n)
.tran 0 40n
.include C:\Users\Jameson\Desktop\Lab5_VLSI\C5_models.txt

A
B
JBS
Y

PMOS
notA_out
NMOS
a_in
A

b_in
PMOS
notB_out
NMOS
B

a_in
PMOS
PMOS
b_in
notB_out
PMOS
PMOS
notA_out
Y
a_in
NMOS
NMOS
notB_out
b_in
NMOS
NMOS
notA_out

d_in

JBS

xor_d_out

vdd vdd 0 dc 5
vin d_in 0 pulse(0v 5v 10n 1n 1n 40n 40n)
.tran 0 40n
.include C:\Users\Jameson\Desktop\Lab5_VLSI\C5_models.txt