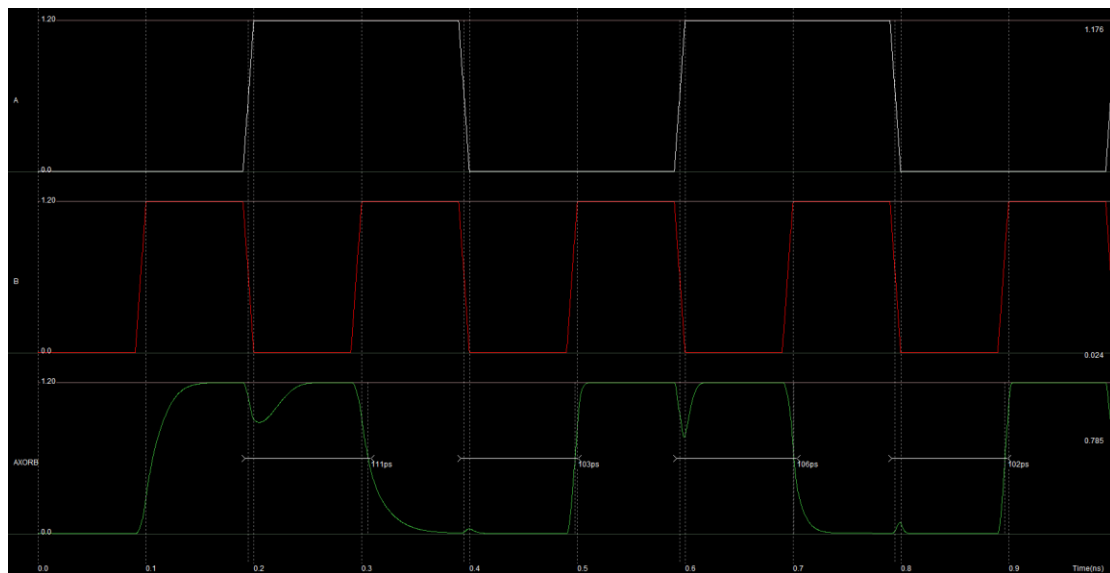# 2nd VLSI Laboratory Exercise

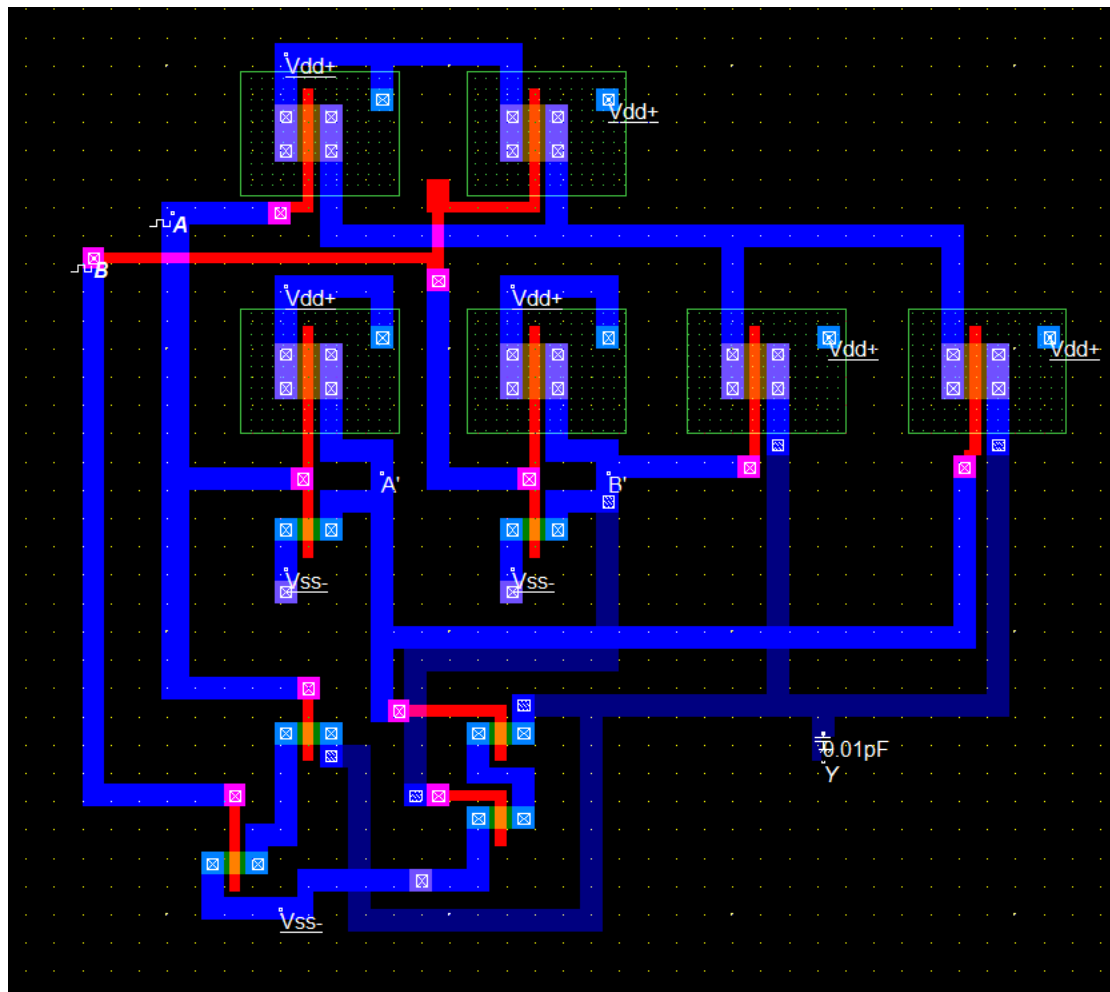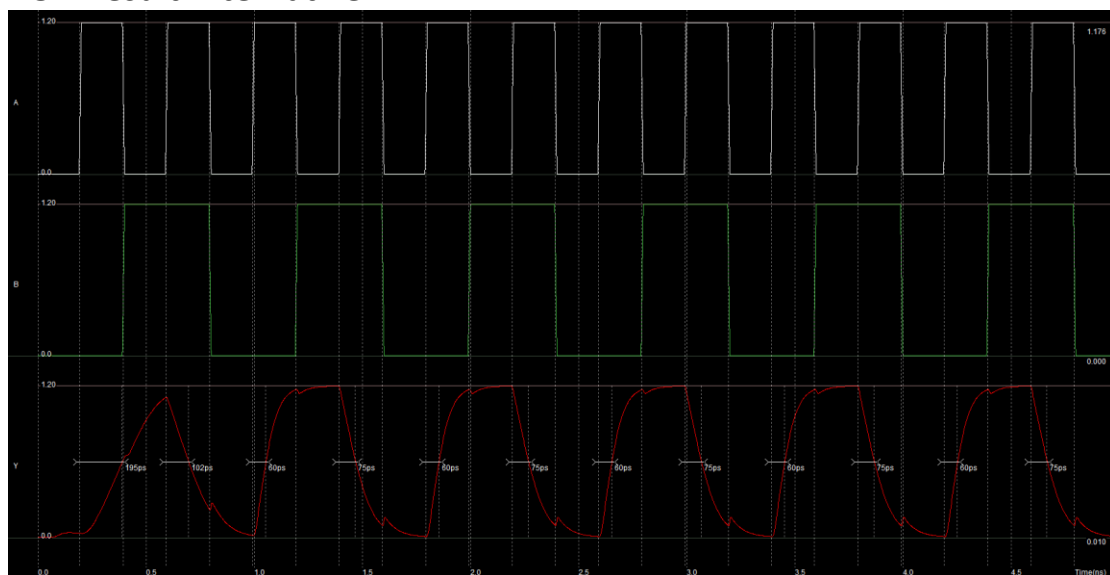**1.**

XOR Circuit
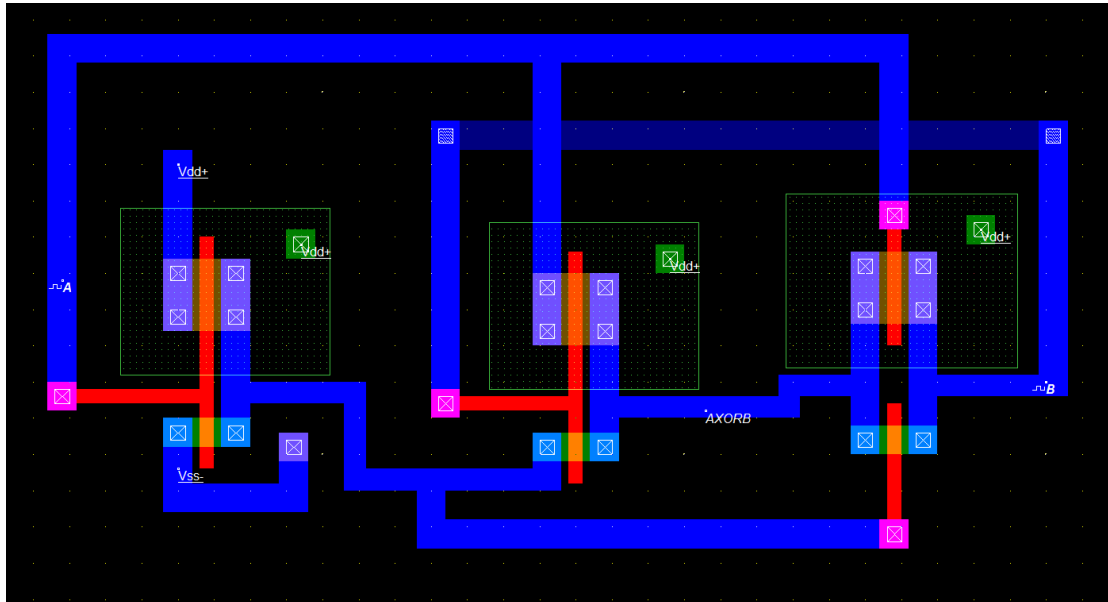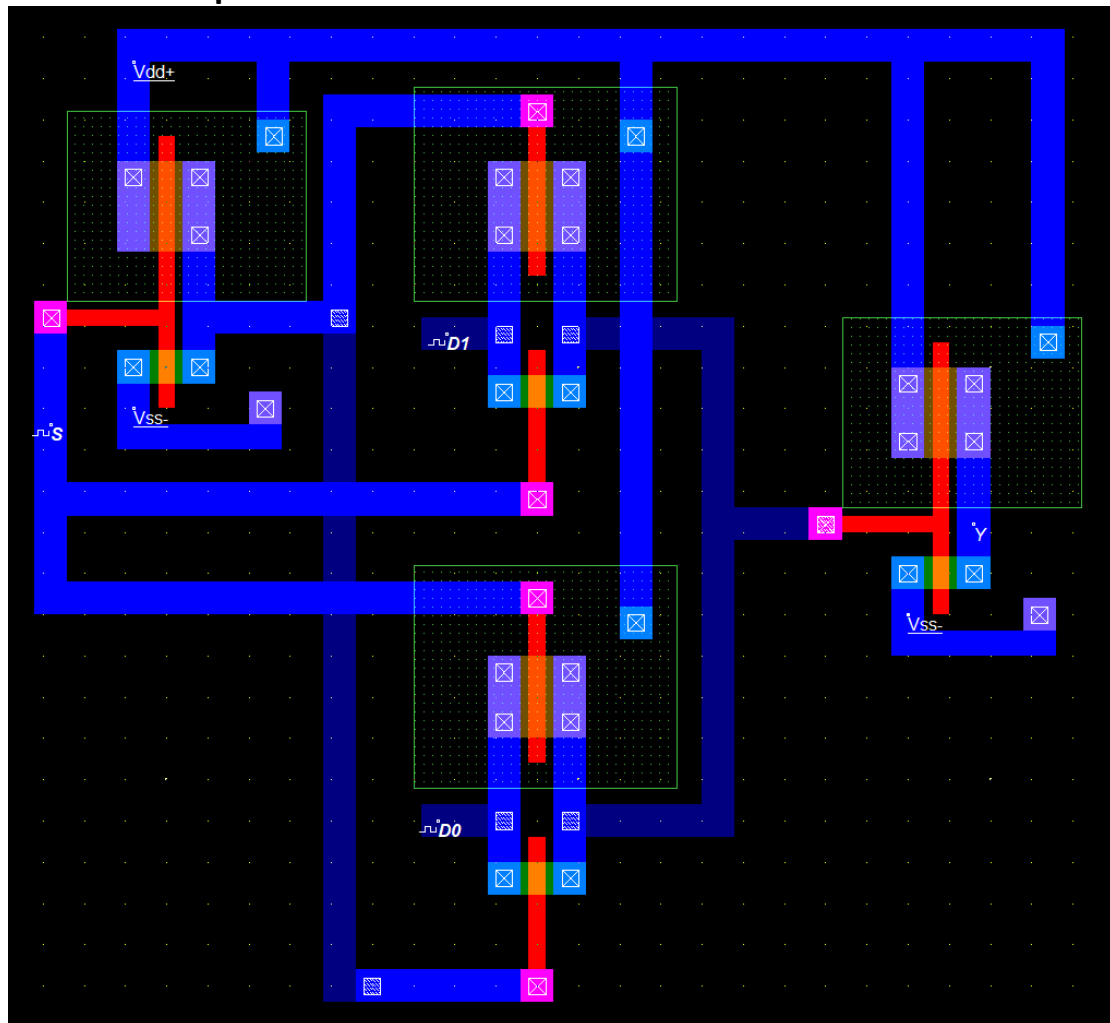

XOR Result

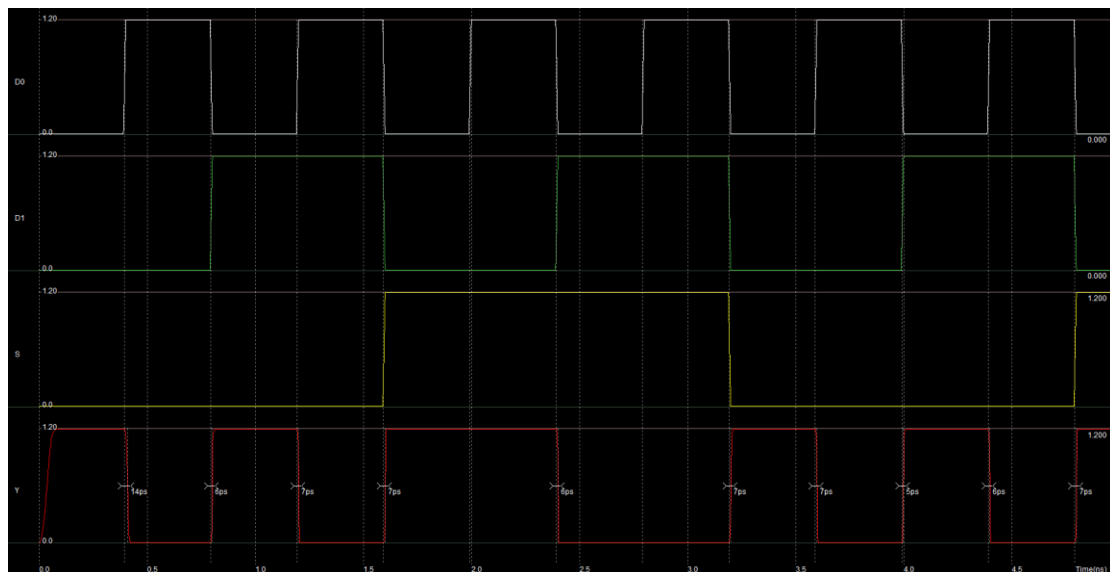## XOR Circuit Alternative

XOR Result Alternative

The delay in the second circuit is longer and this makes sense because the number of transistors is much larger.
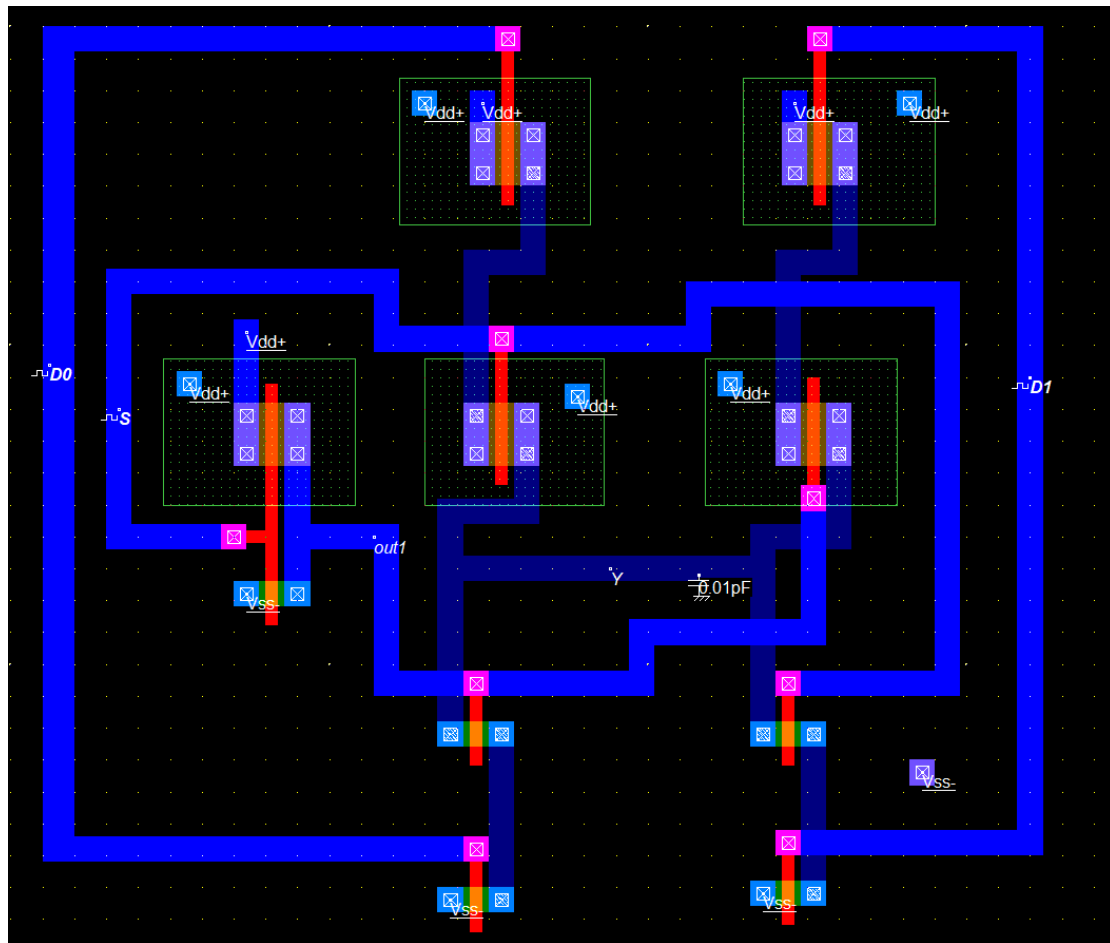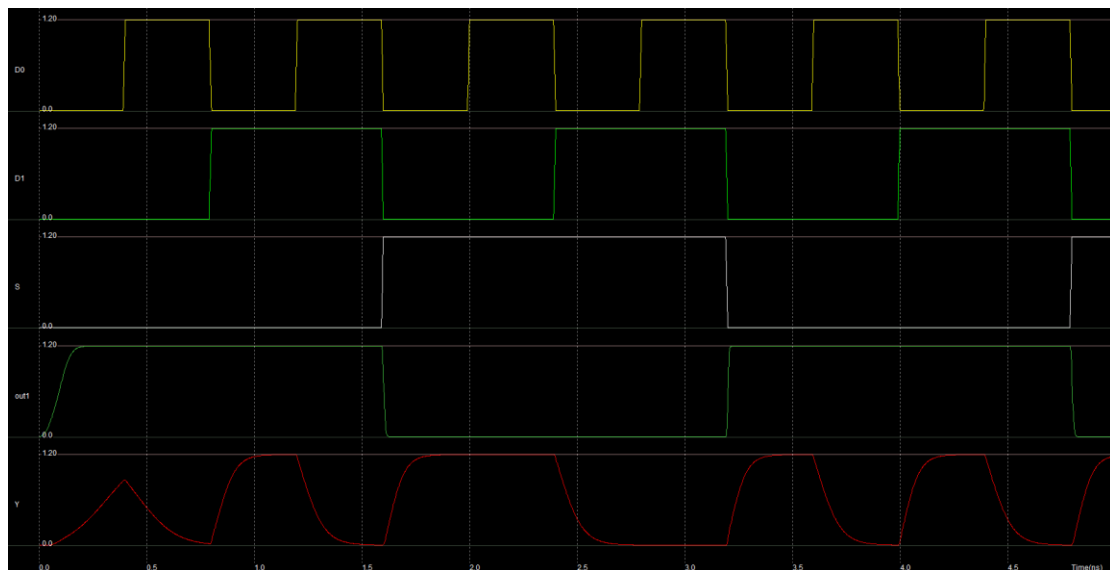
2.

Inverse Multiplexer A' Method

Result

Inverse Multiplexer B' Method

Result

In the first circuit we observe that the delay is minimal, while in the second circuit it is quite large. So, the best design is considered to be the first one with the transmission gates.