

1. Fixed memory of ROM using 7 seg display:

Components:

- Logicstate
- 7404
- 7408
- 7432
- 7seg led (com-cath)

2. Design and implementation of demultiplexer:

Components:

- Logicstate
- 7404
- 7408
- Led

3. Investigate the operation of 4:1 mux with truth table

Components:

- Logicstate
- 7404
- 7408
- Led
- 7432

4,5. Design and implementation of adder

Components:

- Logicstate
- 7408
- 7486
- logicprobe(big)

6,7. Design and implementation of subtractor

Components:

- Logicstate
- 7408
- 7486
- logicprobe(big)
- 7404

3. Basic gates design and implementation by using universal gate. (NAND)

function = $ab' + a'b$

Components:

- Logicstate
- logicprobe(big)
- 7400

2. Verification of de-morgan law

Function:

1st law

$(ab)' a' + b'$

$1,1 \Rightarrow 0$

2nd law

$(a+b)' (ab)'$

$0,0 \Rightarrow 1$

Components:

- 7400
- 7402
- 7432
- 7408
- 7404
- Logicstate
- logicprobe(big)