

CS315-02 Advanced Architecture Final Review 2025-12-02

Project 07 Q&A

Advanced Architecture

Final Exam Practice Problems

Speculative Execution

Out of order Execution

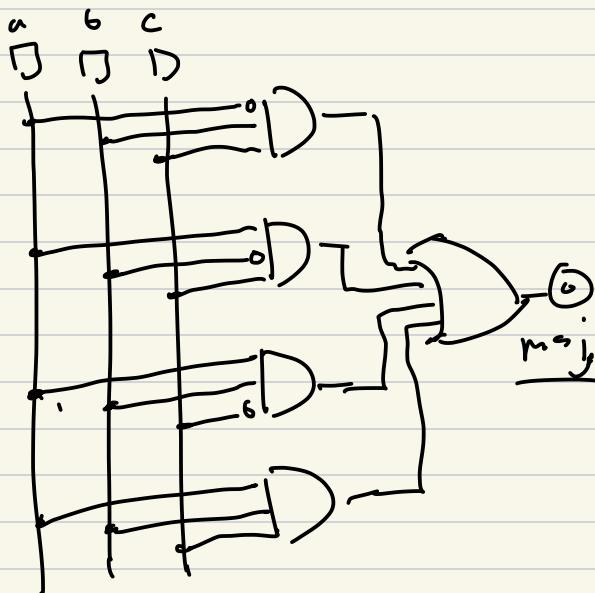
ld t₀ (a₀)

add t₁, t₂, t₃

Question 1

a	b	c	maj
0	0	0	0
0	0	1	0
0	1	0	0
✓ 0	1	1	1
1	0	0	0
✓ 1	0	1	1
1	1	0	1
1	1	1	1

$$\text{maj} = (\bar{a} \cdot b \cdot c) + (a \cdot \bar{b} \cdot c) + (a \cdot b \cdot \bar{c}) + (a \cdot b \cdot c)$$



Question 3

