

Review Topics for Final

All topics from previous tests

Instruction Level Parallelism

- Data Flow dependencies/data hazards

- Scoreboarding Algorithm

 - In-order-issue and write down dependencies

- Tomasulo's Algorithm

 - In-order-issue and Register renaming

- Maximum ILP

 - Ignore structural hazards (unlimited hardware)

Caching and Virtual Memory

- Cache Hierarchy -fast/small/expensive to large/slow/cheap

- Direct Mapped Cache

- Fully Associative Cache

- Set-Associative Cache

- Replacement Strategies

- Tag / hash or line # / index into block

- Interactions with Virtual Memory/Virtual Addresses

Virtual Memory

- The things covered on Friday