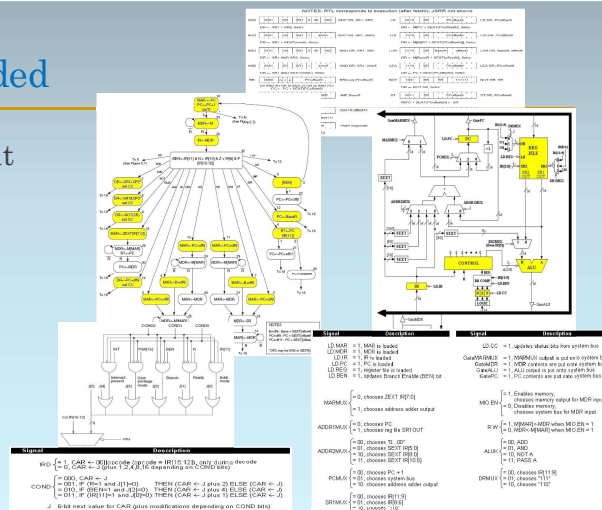


## Major Exam Topics

- 2's complement representation and operations
- Error detection and correction
- 2-level design (K-maps, minimization, ...)
- Modular design with MUXes, decoders, adders, ..., bit-slicing
- FSM design and implementation, serialization, counters, registers, modular design
- Von Neumann model
- LC-3 datapath & control unit design
- LC-3 coding in binary and assembly

## What will be provided

- LC-3 instructions format
- LC-3 FSM
- LC-3 datapath & control signals
- LC-3 microsequencer & condition codes



## What is allowed to be brought to the exam

- 2 pages (double-sided) of hand-written notes