

# Final: Closed book and notes, no calculator

- Number systems
- Simplification using K-map (up to 5 variables)
  - SOP, POS, Standard SOP and POS, Min. SOP and POS
- Design of combinational circuits
  - Circuit conversion to all NAND or NOR gates
  - Multiplexers, Demultiplexers, Decoders, Encoders
  - Design of combinational circuits using PLD's
- Latch and flip flops characteristics and excitation tables, design of ripple counters
- Analysis of sequential circuits
- Design of sequential circuits
  - Design using Mealy and Moore model
  - Design of a sequence detector
  - Design of a controller
  - Design of a shift register

