

ELEC2141 Midterm exam guide

March 19, 2020, 4 pm (during Thursday lecture time)

1 hour long

2 questions of 50 marks each

Each question will have 3-4 parts

Exam will be held in 6 different rooms/lecture theatres – venue be posted separately

Topics covered in the exam will include

- Number systems, conversion of numbers between systems
- Algebraic simplification of Boolean functions
- Gate input cost of Boolean functions
- Simplification via K-maps, SOP, POS form
- Multi-level optimization of Boolean functions
- NAND, NOR implementation
- Decoders, MUXs and Boolean function implementation using them
- Combinational circuit design
- Hierarchical design
- Operation and timing diagrams of latches and flipflops