ESE112 Exam 2 Study Guide

Exam Information

- Tuesday 27th April from 11:00 to 1:00 pm in Towne 307
- Closed book closed notes
- Bring a calculator
- Expect questions from lab material, practice exercises and exam 1

Material from quiz 1 plus the following:

Circuits
- Capacitor
- Use of RC Circuit

Objects

- How to create objects
- Instance variables
  - scope of an instance variable
    - within the class
    - outside class (public vs. private)
- Methods
  - Query(getters) and Command (setters)
- Constructor
- Difference between static and non-static variables and methods
- Keyword this
- Associativity of Dot Operator

References Type

- Value of reference type
- Null, NullPointerException
- Storage of Reference Type (stack vs. heap)
- What are aliases?
- Comparing reference variables with == vs. equals

Array of Primitives and Objects

- Creating arrays
- Traversing arrays
- ArrayOutofBoundsException
- Invalid indices

Inheritance

- extends, super, protected keyword
- what can be inherited (protected keyword)
- type rules
- instanceof operator
- Overriding: e.g. toString(), equals(), how is it different from overloading?
- Casting

Misc
- Pre and post increment and decrement operators
- Casting with primitives