Final Exam Review Points

The final exam will allow you access to anything you want to put on your laptop, but there will not be internet access. You will have 15 minutes at the beginning of the exam day to load up materials that you want from the network or web before the exam begins, and then the network will be disabled. You may also bring books or notes but cannot share with others.

The exam will consist only of programming questions of the following kinds:

1. Overriding equals and also sorting using Comparators following best practices (i.e., comparisons should be consistent with equals) (Lab 8 Prob2.) You should be ready to override hashCode() whenever you override equals() and understand why we need to override them in different cases(Lab 7 Prob 1 Parts B-D).
2. Solve a problem using a stream pipeline; then generalize your solution to a Lambda Library element. Finally, replace lambdas with inner classes. (Like the quiz)
3. Given a lambda expression, find an appropriate type for it, name it with a (typed) variable, rewrite it as a method reference, state which type of method reference it is, and finally, rewrite the lambda expression as an inner class that implements the functional interface that represents the lambda expression. (Like Lab 8, Problem 6)
4. Write code that handles a situation in which one of the lambdas in a stream pipeline needs to throw a checked exception but cannot because the functional interface it implements does not permit an exception to be thrown (use one of the techniques mentioned in Lesson 11; see Problems 5 in Lab 11).
5. Know how to create JUnit test and best practice for unit testing stream pipelines.
6. Use the reduce method on Streams to solve a problem.
7. Create the most general possible method (a “generic method”) to solve some problem (Like Problem 4 in Lab10).
8. The Java 8 features of interfaces (static and default methods) and best practices for using them.
9. SCI Principle