CS 603 Exam 1 Study Guide

- Be able to write a context-free grammar that generates a specified set of strings.
- Given a grammar, be able to draw a parse tree for a string, and/or to show that the grammar is ambiguous.
- Be able to trace Impcore code or Scheme code to determine its output.
- Be able to write Impcore functions using either imperative or functional language styles.
- Be able to write Scheme functions using a functional language style. Especially know how to use built-in functions such as map, fold, let, lambda.
- Be able to explain functional programming, higher-order functions, closures, and related concepts.
- Be able to draw a picture that shows the internal representation of an S-expression.
- Be able to write Impcore-style natural operational semantics rules.
- Be able to write Scheme-style natural operational semantics rules.
- Be able to write code using either C or C++ or Java (your choice).