CS 275
Final Exam Study Guide

A. Basic scheme functions: car, cdr, cons, append, lambda, if, cond, etc.
B. Map and Apply
C. Fold
D. Unrestricted lambdas
E. Representing data structures with lambdas
F. Representing data structures with lists
G. Trees
H. Environments
I. How Lets, Lambdas and Applications are evaluated by the system.
J. State and set!
K. The Y-Combinator
L. Datatypes
M. Programming language issues
   a. Static vs dynamic binding
   b. Procedure calling mechanisms (call-by-value, name, reference, etc.)
   c. Grammars
   d. Environments
N. Our interpreter project
   a. How specific expressions are parsed/evaluated in our Minischeme project
      including
         i. Let
         ii. Lambda
         iii. Procedure applications
   b. What would happen if we did something differently, such as changing from call-by-value to call-by-reference
O. Streams
P. Accumulator-passing style, continuation-passing style, and tail recursion
Q. call/cc