CS367 Review Questions for Final

These questions come from the end of chapter questions in the class text. Note that the length of the final will resemble the length of the midterm. You should also be familiar with Assignments 5 & 6.

Chapter 7
Topics: Tree structure, Binary Tree, Tree traversal (preorder, in order, post order, level order), General Trees

Questions: R-7.7, R-7.12, R-7.14, C-7.1, C-7.5, C-7.12, C-7.21

Chapter 8
Topics: Heap, Priority Queue

Questions: R-8.3, R-8.8, R-8.11, R-8.17, C-8.5, C-8.12, C-8.16

Chapter 9
Topics: Map, Dictonary, Hash Table, Hash Function, Direct Addressing, Collision, Open Addressing, Linear Probing, Double Hashing

Questions: R-9.5, R-9.15, C-9.7, C-9.13

Chapter 10
Topics: Binary Search Tree, Red-Black Tree. AVL Tree, Splay Tree, Multiway Search Tree

Questions:R-10.2, R-10.4, R-10.9, R-10.10, R-10.14, R-10.24, C-10.7, C-10.17

Chapter 11
Topics: Sets

Questions: C-11.25

Chapter 13
Topics: Graphs, Directed Graph, Undirected Graph, DAG, Connected Graphs, Weighted Graphs, Neighborhood List and Matrix, Graph Traversal (depth first search, breadth first search), Shortest Path (Dijkstra's algorithm, Floyd-Warshall Algorithm), Minimum Spanning Trees

Questions: R-13.8, R-13.9, R-13.32, R-13.33, C-13.9, C-13.12, C-13.22

Chapter 14
Topics: Java Virtual Machine, Memory Heap, Garbage Collection, Cache, Compression, B-Tree

Questions: R-14.5, R-14.6, C-14.5, C-14.10