Test 3 Review Guide
CS 222

Exam details:

1. Open Book, Open Notes, but **no "e-materials", no phones, no computers and pads.**
2. **Calculator is allowed for this exam.**
3. Show all of your work. Partial credit is your friend.
4. Do not erase. Draw lines through erroneous work and they will only be reviewed if you miss the problem and I am looking for partial credit to award you.

Topics may include:
- **Relations**
  - Relation properties: reflexive, symmetric, antisymmetric, transitive
  - Composite of relations
  - Representing Relations Using Digraphs
  - Representing Relations Using Matrix
  - Reflexive Closures
  - Symmetric Closures
  - Transitive Closures

- **Graph**
  - Terminology in Undirected Graph, Directed Graph and Mixed Graph
  - Euler's Solution
  - Graph Models
  - Degrees of Undirected and Directed Graph
  - Handshaking Lemma
  - Graph representation using adjacency list and adjacency matrix
  - Path, Circle, and Connections of Undirected and Directed Graph
  - Shortest path algorithms