

1. (1 pt.)

- This *quick check* is **closed book, notes, etc.**
- You may use a 3 in. × 5 in. **reference card**, *hand-written by you*.
- Use the **classroom and textbook conventions** and terminology.

Read the above carefully; then write your name below:

2. (2 pts.) Which representation is used by most of the algorithms described for:

- (a) single-source shortest paths?
- (b) all-pairs shortest paths?

3. (2 pts.) Section 25.1 related shortest paths to a well known mathematical operation; which operation is it?

4. (2 pts.) State the asymptotic time complexities of each of the following algorithms.

- (a) SLOW-ALL-PAIRS-SHORTEST-PATHS.
- (b) FLOYD-WARSHALL.

5. (3 pts.) Provide the textbook's definition of a *predecessor matrix*.