

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. (3 pts.) State the names of the three operations supported by a *disjoint-sets data structure*.

3. (2 pts.) State the name (**or** briefly describe) of the application of disjoint-sets data structures that is described in Section 21.1

4. (2 pts.) State the name (**or** briefly describe) the heuristic used to improve the running time of the linked-list representation of disjoint sets.

5. (2 pts.) State the name (**or** briefly describe) of any one of the two heuristics used to improve the running time of *disjoint-set forests* data structures.