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.) Define a *minimum spanning tree.*

3. (2 pts.) Define a *safe edge* (in the context of spanning-tree algorithms).

4. (2 pts.) State the names of the two minimum-spanning tree algorithms described in Chapter 23.

5. (3 pts.) State the asymptotic running times of each of the algorithms of Question 4 for a graph with n vertices and m edges.