

1. (1 pt.)

- This *quick check* is **closed book, notes, etc.**
- You may use a 3 in.  $\times$  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.) What is the name of the problem studied in Section 5.1?

3. (2 pts.) How does Section 5.1 define a *uniform random permutation* of the list  $\langle 1, 2, 3, \dots, n \rangle$ ?

4. (2 pts.) Let  $A$  denote an event on sample space  $S$ . Provide Section 5.2's definition of the *indicator random variable*  $I\{A\}$ .

5. (3 pts.) State the names of the two algorithms provided by Section 5.3 for randomly permuting arrays. (Just stating their names is sufficient; however, **if** you do not remember the names then you may also describe the main idea behind each algorithm briefly.)