

# Pop Quiz 9

## November 10, 2003

### 5 Points

1. **TRUE OR FALSE:** There can be no collisions in a hash table that has 11 slots and that contains 8 records.
2. Define any hash function on integers for a table of size 13.
3. **TRUE OR FALSE:** In closed hashing, every record in the hash table is in its own slot.
4. **TRUE OR FALSE:** In open hashing, search for key  $k$  continues until key  $k$  is found or an empty slot is found.
5. **TRUE OR FALSE:** Bucket hashing is more suited to a hash table on disk than one in RAM.

## Solutions to Pop Quiz 9

1. There can be no collisions in a hash table that has 11 slots and that contains 8 records. **FALSE.** (TRUE is also accepted due to English-language ambiguity in the sentence.)
2.  $h(x) = x \pmod{13}$  is such a hash function because it returns an integer between 0 and 12.
3. In closed hashing, every record in the hash table is in its own slot. **TRUE.**
4. In open hashing, search for key  $k$  continues until key  $k$  is found or an empty slot is found. **FALSE.**
5. Bucket hashing is more suited to a hash table on disk than one in RAM. **TRUE.**