

**CS 589: Quiz 4, 3 November 2008 Name: \_\_\_\_\_KEY\_\_\_\_\_**

No books or notes. Work individually.

Question 1: Consider the following data scheme for an auction site.

```
bids(Bidder, Price, ItemID)
items(ItemID, Seller, MinBid)
```

Simplify each of the SQL queries below as much as possible.

a. (5 points) *In this query, because of the equality of the two Price fields, we only need to make the comparison with MinBid once.*

```
select distinct b1.Bidder, b2.Bidder
from bids as b1, bids as b2, items as i
where b1.ItemID = i.ItemID and
      b2.ItemID = i.ItemID and
      b1.Price = b2.Price and
b1.Price > i.MinBid and
      b2.Price > i.MinBid
```

b. (5 points) *In this query, we only report one Bidder, but check for a matching second Bidder. However, as b1 and b2 can be bound to the same tuple, a matching second Bidder always exists. The “distinct” means that the number of matching Bidders doesn’t matter, so we can get rid of b2 completely.*

```
select distinct b1.Bidder
from bids as b1, bids as b2, items as i
where b1.ItemID = i.ItemID and
b2.ItemID = i.ItemID and
b1.Price = b2.Price and
      b1.Price > i.MinBid and
b2.Price > i.MinBid
```