**Tutorial 2**

**GC 312**

**Problem 1:**

Translate the following EER diagram to a relational schema.



**Problem 2:**

The following EER diagram describes a riding club. The ternary relationship *participates-in with* should be read as “A junior member *participates in* a riding lesson *with* a school horse”.

Translate the given EER-diagram into relational tables.

Mark primary keys with a single underline.



**Problem 3:**

Consider an online auction database system in which members (buyers and sellers) participate in the sale of items. The data requirements for this system are summarized as follows:

• The online site has members who are identified by a unique member id and are described by an email address, their name, a password, their home address, and a phone number.

• A member may be a buyer or a seller. A buyer has a shipping address recorded in the database. A seller has a bank account number and routing number recorded in the database.

• Items are placed by a seller for sale and are identified by a unique item number assigned by the system. Items are also described by an item title, an item description, a starting bid price, bidding increment, the start date of the auction, and the end date of the auction.

• Items are also categorized based on a fixed classification hierarchy (for example a modem may be classified as /COMPUTER/HARDWARE/MODEM).

• Buyers make bids for items they are interested in. A bidding price and time of bid placement is recorded. The person at the end of the auction with the highest bid price is declared the winner and a transaction between the buyer and the seller may proceed soon after.

• Buyers and sellers may place feedback ratings on the purchase or sale of an item. The feedback contains a rating between 1 and 10 and a comment. Note that the ratings are placed on a completed transaction by the buyer or seller of the item in the transaction.

Design an Enhanced Entity-Relationship diagram for the auction database.

After That Map your EER into a Relational Schema Model