Section 4 Design

SUPERTYPES AND SUBTYPES

Which of the following is the best scenario for using supertype/subtype entities:
A vehicle dealership that sells cars, trucks and boats on trailers.

The "Other" subtype is best used:
As an extra subtype to ensure that all instances of subtypes are mutually exclusive and complete.
By having an "Other" subtype, all instances of the Supertype will be of one subtype type.

Which of the following is a TRUE statement about the diagram below?
Every A is a B

A supertype should have at least two subtypes. True or False?
True

All instances of the subtypes must be an instance of the supertype. True or False?
True

A subtype can have a relationship not shared by the supertype. True or False?
True

Which of the following is true about supertypes and subtypes?
Subtypes inherit the relationships and attributes of the supertype.

All instances of the supertype are also instances of one of the subtypes. True or False?
True

DOCUMENTING BUSINESS RULES

How would you model a business rule that states that on a student's birthday, they do not have to attend their classes?
You cannot model this. You need to document it

Why is it important to identify and document business rules?
It allows you to create your data model and then check it for accuracy.

How should you handle constraints that cannot be modeled on an ER diagram?
List them on a separate document to be handled programmatically

'Only managers can approve travel requests' is an example of which of the following?
A procedural business rule.

Business rules are important to data modelers because:

A. They capture all of the needs, processes and required functionality of the business.

A business rule such as "All accounts must be paid in full within 10 days of billing" is best enforced by:
Hiring a programmer to create additional programming code to identify and report accounts past due.

Which of the following is an example of a structural business rule?
All employees must belong to at least one department.