

1. You're building a website for an online store. You need to store product information, customer details, and order history. Which of the following best describes the role of a database in this scenario?

- ☐ A programming language for data analysis
- ☒ A collection of related tables
- ☐ A physical device for storing data
- ☐ A graphical user interface for data visualization

✓ **Correct**

Correct! In this scenario, a database serves as a collection of related tables. It provides a structured way to store product information, customer details, and order history in separate tables, allowing efficient management and data retrieval.

3. In a library entity-relationship data model, a book is an example of _____, and the book's title, edition, and publication date are examples of _____.

- ☒ an entity, attributes
- ☐ an attribute, entities
- ☐ an entity, properties
- ☐ a row, columns

✓ **Correct**

Correct! In an E-R model, an entity is a noun (person, place, or thing). An attribute is a property or characteristic of the entity.

4. Which of the following statements about a database is/are correct?

- ☒ A database is a logically coherent data collection with some inherent meaning.
- ☐ Data can only be added and queried from a database but not modified.
- ☐ Only SQL can be used to query data in a database.
- ☐ A database collects unrelated data stored in separate files.

✓ **Correct**

Correct! A database is a logically coherent collection of data with some inherent meaning.

5. What is the key advantage of the relational model in databases?

- ☐ Physical data independence
- ☐ Data security
- ☐ Unstructured data handling
- ☒ Logical and physical data independence

✓ **Correct**

Correct! The relational model offers logical and physical data independence, allowing data to be accessed and modified without affecting the underlying database structure.