



Time left 0:24:29

**Question 1**

Not yet answered

Marked out of 1.00

Which notation is commonly used to represent a conceptual data model?

- ☐ a. Structured Query Language (SQL)
- ☐ b. Unified Modeling Language (UML)
- ☐ c. JavaScript Object Notation (JSON)
- ☐ d. Entity-Relationship Diagram (ERD)

**Question 2**

Not yet answered

Marked out of 1.00

Which term describes the practice of eliminating or minimizing data redundancy by organizing data efficiently in a database?

- ☐ a. Data normalization
- ☐ b. Data redundancy
- ☐ c. Data encryption
- ☐ d. Data obfuscation

**Question 3**

Not yet answered

Marked out of 1.00

In physical data model, ensuring data integrity is the role of:

- ☐ a. Database view
- ☐ b. Database index
- ☐ c. Database constraint
- ☐ d. Database lock

**Question 4**

Not yet answered

Marked out of 1.00

What does a tuple represent in a relational data model?

- ☐ a. Record
- ☐ b. Table
- ☐ c. Schema
- ☐ d. Column

**Question 5**

Not yet answered

Marked out of 1.00

How does data redundancy affect the efficiency of database operations?

- ☐ a. It enhances transaction management
- ☐ b. It simplifies data indexing
- ☐ c. It hinders data retrieval speed
- ☐ d. It accelerates query processing

**Question 6**

Not yet answered

Marked out of 1.00

Which of the following is a characteristic of a well-designed relational schema with minimal redundancy?

- ☐ a. Excessive use of composite keys
- ☐ b. Complex query optimization
- ☐ c. Simplified data retrieval
- ☐ d. High data anomalies

**Question 7**

Not yet answered

Marked out of 1.00

Which normal form eliminates transitive dependencies?

- ☐ a. First Normal Form (1NF)
- ☐ b. Third Normal Form (3NF)
- ☐ c. Boyce-Codd Normal Form (BCNF)
- ☐ d. Second Normal Form (2NF)

**Question 8**

Not yet answered

Marked out of 1.00



In an ER diagram, what does the term "recursive relationship" imply?

- ☐ a. A many-to-many relationship exists
- ☐ b. A subtype represents a specialized version of another entity
- ☐ c. An entity participates in more than one relationship
- ☐ d. Entities of the same type participate in a relationship

**Question 9**

Not yet answered

Marked out of 1.00

What is the primary responsibility of a Database Project Manager?

- ☐ a. Overseeing the planning and execution of database-related projects
- ☐ b. Writing code for applications
- ☐ c. Designing network architectures
- ☐ d. Managing and maintaining the organization's database system

**Question 10**

Not yet answered

Marked out of 1.00

What is a disadvantage of excessive data redundancy in terms of database maintenance?



- ☐ a. Simplified data retrieval
- ☐ b. Increased complexity in updates
- ☐ c. Enhanced system performance
- ☐ d. Improved data consistency

**Question 11**

Not yet answered

Marked out of 1.00

Which cardinality ratio indicates a "one-to-many" relationship?

- ☐ a. N:1
- ☐ b. 1:01
- ☐ c. 1:N
- ☐ d. N:M

**Question 12**

Not yet answered

Marked out of 1.00

What is the definition of a functional dependency?

- ☐ a. A correlation between attributes in a relation
- ☐ b. The requirement for candidate keys
- ☐ c. A relationship between primary and foreign keys |
- ☐ d. A one-to-one relationship between tables

**Question 13**

Not yet answered

Marked out of 1.00

What is the purpose of a ternary relationship in an ER diagram?

- ☐ a. Defining a one-to-one relationship
- ☐ b. Linking three entities in a complex way
- ☐ c. Establishing a recursive relationship
- ☐ d. Indicating a subtype relationship

**Question 14**

Not yet answered

Marked out of 1.00

What critical factor differentiates a candidate key from a superkey in a relational database?

- ☐ a. Ability to reference other tables vs. self-referencing.
- ☐ b. Uniqueness guarantee vs. potential duplicates.
- ☐ c. Data type consistency vs. flexibility.
- ☐ d. Minimum vs. maximum number of attributes.

**Question 15**

Not yet answered

Marked out of 1.00

What potential problem may arise due to data redundancy when updating information in a database?

- ☐ a. Data consistency
- ☐ b. Faster query processing
- ☐ c. Update anomalies and inconsistencies
- ☐ d. Improved data accuracy