



Started on Saturday, 2 November 2024, 1:22 AM

State Finished

Completed on Saturday, 2 November 2024, 1:27 AM

Time taken 4 mins 26 secs

Marks 18.00/20.00

Grade 90.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

What is the primary purpose of ODBC (Open Database Connectivity)?

- a. To define the structure of a database schema
- b. To facilitate communication between applications and databases ✓
- c. To manage database security protocols
- d. To optimize SQL queries for performance

Question 2

Correct

Mark 1.00 out of 1.00

What is the purpose of an associative entity in a conceptual data model?

- a. To represent a many-to-many relationship directly ✓
- b. To store calculated values
- c. To establish a foreign key relationship
- d. To improve query performance

Question 3

Correct

Mark 1.00 out of 1.00

Which of the following components is responsible for translating ODBC calls into database-specific commands?

- a. ODBC Driver Manager
- b. ODBC Data Source
- c. ODBC API
- d. ODBC Driver ✓

Question 4

Correct

Mark 1.00 out of 1.00



Which of the following statement is True?

- a. A check constraint prevents null values in a column, ensuring data consistency.
- b. A check constraint validates the data in a column based on a specified condition, ensuring data integrity. ✓
- c. A check constraint is used to create hierarchical relationships between tables.
- d. A check constraint is irrelevant to data integrity in a relational data model.

Question 5

Correct

Mark 1.00 out of 1.00

What is the purpose of a Database Connector in the context of Database APIs?

- a. Establishes a connection one database to another
- b. Establishes a connection between a software application and a database ✓
- c. Defines the structure of the database
- d. Manages database transactions

Question 6

Correct

Mark 1.00 out of 1.00

What is the significance of data models in the context of database design and management?

- a. Data models are irrelevant to database design.
- b. Data models are only useful for graphical representation.
- c. Data models provide a blueprint for organizing data and understanding relationships in database design. ✓
- d. Data models only focus on query optimization.

Question 7

Correct

Mark 1.00 out of 1.00

If a functional dependency exists between attributes A and B, and B is a subset of A, what is this relationship called?

- a. Trivial dependency ✓
- b. Non-trivial dependency
- c. Composite dependency
- d. Partial dependency



Question 8

Correct

Mark 1.00 out of 1.00

What distinguishes the role of a Database Consultant from other database professionals?

- a. Consultants focus solely on database administration tasks.
- b. Consultants work independently and provide expertise to multiple clients. ✓
- c. Database Consultants are synonymous with Database Developers.
- d. Database Consultants primarily focus on data analysis.

Question 9

Correct

Mark 1.00 out of 1.00

When using the SQL statement CREATE TABLE orders (order_id INT PRIMARY KEY, product_id INT REFERENCES products(id));, what does "REFERENCES products(id)" specify?

- a. Adds a new table named "products(id)"
- b. Modifies the "products" table structure
- c. Creates a foreign key constraint on "order_id" referencing "products(id)" ✓
- d. Deletes the "products" table

Question 10

Correct

Mark 1.00 out of 1.00

Which command adds a new column named "category" to a table named "items" and set its default value to 'Uncategorized'?

- a. ALTER TABLE items ADD COLUMN category VARCHAR(50) DEFAULT 'Uncategorized' ✓
- b. Alter COLUMN category TO items DEFAULT 'Uncategorized'
- c. MODIFY TABLE items ADD category VARCHAR(50) DEFAULT 'Uncategorized'
- d. INSERT INTO items (category) VALUES ('Uncategorized')

Question 11

Correct

Mark 1.00 out of 1.00

In a well-designed relational schema, what is the significance of referential integrity constraints?

- a. To introduce redundancy
- b. To enforce data anomalies
- c. To establish relationships between tables ✓
- d. To complicate the normalization process

Question 12

Correct

Mark 1.00 out of 1.00



How do you use a subquery to retrieve records where a column's values are greater than the average value of that column?

- a. SELECT * FROM table WHERE column > AVG(column)
- b. SELECT * FROM table WHERE column > (SELECT AVG(column) FROM table) ✓
- c. SELECT * FROM table HAVING column > AVG(column)
- d. SELECT * FROM table JOIN (SELECT AVG(column) FROM table) ON column > avg_value

Question 13

Incorrect

Mark 0.00 out of 1.00

What is the term for indicating that every entity in the superclass must participate in the subtype?

- a. Optional participation
- b. Mandatory participation
- c. Voluntary participation
- d. Compulsory participation ✗

Your answer is incorrect.

Question 14

Correct

Mark 1.00 out of 1.00

How do you use the SQL NOT IN operator in a subquery to exclude certain values?

- a. SELECT * FROM table WHERE column NOT IN (value1, value2) ✓
- b. SELECT * FROM table WHERE column EXCLUDES (value1, value2)
- c. SELECT * FROM table WHERE column EXCEPT (value1, value2)
- d. SELECT * FROM table WHERE column NOT EQUALS (value1, value2)

Question 15

Correct

Mark 1.00 out of 1.00

How does functional dependency contribute to the normalization process?

- a. By introducing data redundancy
- b. By simplifying data retrieval
- c. By identifying relationships between tables
- d. By eliminating data redundancy ✓

Question 16

Correct

Mark 1.00 out of 1.00



What is the main purpose of using the ROLLBACK statement in a database transaction?

- a. Commit the changes made during the transaction
- b. Undo the changes made during the transaction ✓
- c. Retrieve data from the database
- d. Lock the database for exclusive access

Question 17

Correct

Mark 1.00 out of 1.00



What is the purpose of the PRIMARY KEY constraint in a table?

- a. Ensures unique values in a column ✓
- b. Allows NULL values in a column
- c. Adds a default value to a column
- d. Specifies the data type of a column

Question 18

Incorrect

Mark 0.00 out of 1.00



What impact does updating a primary key value in a parent table have on its child table with a referential integrity constraint?

- a. No impact
- b. Child table is updated accordingly
- c. Child tuple is deleted and must be reinserted
- d. An error occurs (b) ✗

Question 19

Correct

Mark 1.00 out of 1.00



Which phase of the Waterfall model involves the design and development of database schema?

- a. Construction phase ✓
- b. Integration phase
- c. Summarization phase
- d. Compilation phase



Question 20

Correct

Mark 1.00 out of 1.00

What distinguishes the Waterfall model from the Agile methodologies in database development?

- a. Continuous integration
- b. Incremental iterations
- c. Sequential progression ✓
- d. Dynamic requirements