

Database administrator

 Test duration: 45 minutes  Difficulty level: **Moderate**



1. Which of the following best describes the role of a primary key in a database?

- A) It allows duplicate values in a table
- B) It uniquely identifies each record in a table
- C) It links two tables together in a many-to-many relationship
- D) It is used to encrypt data in a table

Correct answer: B) It uniquely identifies each record in a table

2. What is the purpose of indexing in a database?

- A) To store backup copies of data
- B) To enforce data integrity
- C) To improve the speed of data retrieval operations
- D) To convert data types

Correct answer: C) To improve the speed of data retrieval operations

3. Which SQL command is used to remove a table from a database?

- A) DELETE TABLE
- B) DROP TABLE
- C) REMOVE TABLE
- D) ERASE TABLE

Correct answer: B) DROP TABLE

4. In the context of database transactions, what does the acronym ACID stand for?

- A) Atomicity, Consistency, Isolation, Durability
- B) Accuracy, Consistency, Integration, Data
- C) Access, Control, Integrity, Distribution
- D) Archive, Compress, Index, Delete

Correct answer: A) Atomicity, Consistency, Isolation, Durability

5. What is the primary purpose of database normalization?

- A) To optimize the database for read-heavy operations
- B) To remove redundancy and ensure data integrity by organizing data into related tables
- C) To increase the size of the database
- D) To create complex queries

Correct answer: B) To remove redundancy and ensure data integrity by organizing data into related tables

6. Which of the following is a best practice for database backup and recovery?

- A) Perform backups only once a year
- B) Store all backups on the same server as the database
- C) Regularly test backups by performing restores to ensure data integrity
- D) Avoid using automated backup solutions

Correct answer: C) Regularly test backups by performing restores to ensure data integrity

7. What is a foreign key in a relational database?

- A) A unique identifier for a record in a table
- B) A key that refers to the primary key of another table, establishing a relationship between the two tables
- C) A key used to encrypt data
- D) A key that is automatically generated by the database system

Correct answer: B) A key that refers to the primary key of another table, establishing a relationship between the two tables

8. Which of the following SQL statements is used to retrieve data from a database?

- A) INSERT
- B) UPDATE
- C) DELETE
- D) SELECT

Correct answer: D) SELECT

9. What is database performance tuning primarily concerned with?

- A) Improving the physical appearance of the database
- B) Enhancing the speed and efficiency of database operations, such as queries and transactions
- C) Reducing the size of the database files
- D) Increasing the complexity of database queries

Correct answer: B) Enhancing the speed and efficiency of database operations, such as queries and transactions

10. Which of the following is a critical security measure for protecting a database?

- A) Allowing unrestricted access to all users
- B) Implementing strong authentication, access controls
- C) Disabling all logging and auditing features
- D) Storing sensitive data in plain text within the database

Correct answer: B) Implementing strong authentication, access controls