

# SQL DATABASE FUNDAMENTALS

(345)

**REGIONAL – 2019**

**Multiple Choice:**

Multiple Choice (50 @ 10 points each) \_\_\_\_\_ (500 points)

***TOTAL POINTS*** \_\_\_\_\_ (*500 points*)

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- 2. No equipment, supplies, or materials other than those specified for this event are allowed in the testing area. No previous BPA tests and/or sample tests or facsimile (handwritten, photocopied, or keyed) are allowed in the testing area.**
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No more than sixty (60) minutes testing time

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### MULTIPLE CHOICE

Identify the letter of the choice that best completes the statement or answers the question. Mark A if the statement is true. Mark B if the statement is false.

1. What does SQL stand for?
  - a. Standard Question Language
  - b. Safe Query Language
  - c. Structure Query Language
  - d. Strong Question Language
  
2. The command to remove rows from a table 'CUSTOMER' is:
  - a. DELETE FROM CUSTOMER WHERE
  - b. DROP FROM CUSTOMER
  - c. UPDATE FROM CUSTOMER
  - d. REMOVE FROM CUSTOMER
  
3. Which SQL statement is used to extract data from a database
  - a. Select
  - b. Delete
  - c. Join
  - d. Group By
  
4. Keys may include:
  - a. Primary keys
  - b. Nonunique secondary keys
  - c. Unique secondary keys
  - d. All of the above
  
5. How do you select all the columns from a table named "Addresses"?
  - a. SELECT FROM Addresses
  - b. SELECT \* FROM Addresses
  - c. SELECT all FROM Addresses
  - d. SELECT Addresses
  
6. A table is:
  - a. A collection of rows
  - b. A collection of rows and columns
  - c. A collection of data types
  - d. A collection of keys, indexes, and columns

7. Which SQL keyword is used to filter records from a table?
  - a. Delete
  - b. Select
  - c. Having
  - d. Where
  
8. Which SQL keyword is used to bring back a specific number of records?
  - a. Select Top
  - b. Select Max
  - c. Select Min
  - d. Select Count
  
9. Which SQL keyword enables you to add records to a table?
  - a. Insert Into
  - b. Update
  - c. Select Into
  - d. Where
  
10. Which SQL keyword enables you to be able to change columns within a table?
  - a. Delete
  - b. Change
  - c. Alter
  - d. Update

11. What would be the effect of the following UPDATE statement?

```
UPDATE Address  
SET AddressCity = 'Columbus'
```

- a. The statement will have no effect
  - b. The statement will change all the records in the table to set city as Columbus
  - c. The statement will change just one record to Columbus
  - d. None of the above
  
12. The OR operator displays a record if ANY conditions listed are true. The AND operator displays a record if ALL of the conditions listed are *true*.
  - a. True
  - b. False

13. A table column within common database terminology is also considered as a(n):
  - a. Data
  - b. Row
  - c. Record
  - d. Field
  
14. Which range of values defines mediumint?
  - a. Integer data from 0 to 512
  - b. Integer data from 0 to 756
  - c. Integer data from 0 to 256
  - d. Integer data from 0 16777215
  
15. What does the SQL clause ORDER BY SalesAmount DESC do?
  - a. Order the salespeople by sales amount least to greatest
  - b. Order the salespeople by the number of digits in the sales amount
  - c. Order the salespeople by sales amount greatest to least
  - d. None of the above
  
16. The acronym ETL stands for Entry, Transform, Load:
  - a. True
  - b. False
  
17. Which acronym refers to the major functions within relational database applications?
  - a. Create, Read, Update, Delete (CRUD)
  - b. Select, Alter, Insert, Delete (SAID)
  - c. Select, Execute, Alter, Write (SEAW)
  - d. Consistency, Availability, Partition tolerance (CAP)
  
18. Each table within a database must have:
  - a. A unique name
  - b. A primary key
  - c. An index
  - d. At least one record
  
19. A primary key:
  - a. Contains two or more fields
  - b. Cannot contain null values
  - c. Must contain a unique value for each row of data
  - d. Both b and c

20. A foreign key:
- Establishes a relationship between two or more tables within two databases
  - Is a numeric field that increments automatically per record
  - Links between a field in one table to a field in another table
  - Is a value that never changes
21. The acronym RDBMS stands for Rational Database Managerial System:
- True
  - False
22. Which of the following is *not* a character string data type in SQL Server?
- Tinytext
  - Text
  - Nvarchar
  - Binary
23. Which of the following is *not* a Date and Time data type within SQL Server?
- Dateoffset
  - Timestamp
  - Smalldatetime
  - Datetime2
  - e.
24. Which of the following is *not* a numeric data type within SQL Server?
- Smallmoney
  - Real
  - Money
  - Varbinary
25. The definition of a Domain is:
- The possible values of an attribute, i.e. column
  - A collection of records
  - A set of data records
  - The possible values of an attribute, i.e. row
26. Which of the following should be considered when making a table within SQL?
- Primary keys
  - Default values
  - Data types
  - All of the above

27. Which of the following are characteristics of an RDBMS?
- Tables are linked by common data known as keys
  - Data are organized in a series of two-dimensional tables each of which contains records for one entity
  - Keys may be unique or have multiple occurrences in the database
  - All of the above.
28. What is the name of the item that can store data from various databases to be used as a fast table in memory to read and write data from?
- Data Source
  - Data Set
  - Query
  - Data connection
29. A database schema:
- Defines the tables, the fields in each table, and the relationships between fields and tables.
  - Is the structure of a database system
  - Is described in a formal language supported by the database management system
  - All of the above
30. The acronym GUID stands for Global User Interface Device:
- True
  - False
31. SQL commands are generally grouped into four different categories. Which of the following is *not* a category of SQL commands?
- DAC (Data Administration Commands)
  - TCC (Transactional Control Commands)
  - DAL (Data Abstraction Language)
  - DQL (Data Query Language)
32. When representing a 1:M relationship in a relational database design, \_\_\_\_\_:
- Both tables need a primary key, and the foreign key needs to be placed in the table that is referencing the other table
  - Both tables must have the same primary key
  - An Intersection table gets the key from both relations
  - One table needs to have a primary key while the other needs a foreign key

33. Primary key constraints ensure:
- Referential integrity
  - User-defined integrity
  - Domain integrity
  - Entity integrity
34. Which of the following is *not* a category of data integrity?
- Attribute integrity
  - Referential integrity
  - Domain integrity
  - User-defined integrity
35. The UPDATE command is used to insert records into tables:
- True
  - False
36. The DROP command is used to either drop a database or table from the server:
- True
  - False
37. In order to create a table named “Orders” with a primary key named “orderID”, use the following MS SQL syntax (assuming there are several more fields):
- CREATE TABLE orders (PRIMARY KEY = orderID INT NOT NULL PRIMARY KEY,)
  - CREATE TABLE NAME = orders (PRIMARY KEY = orderID)
  - CREATE TABLE orders (orderID INT NOT NULL PRIMARY KEY,)
  - CREATE TABLE NAME = orders (orderID INT NULL PRIMARY KEY,)
38. What does the SQL code in the following SQL clause define?  
PRIMARY KEY (Name, Address)
- A composite key
  - A primary key
  - A foreign key
  - None of the above
39. RDBMS is the basis for SQL, and for all modern database systems *except*:
- MariaDB
  - MySQL
  - SQLite
  - MongoDB

40. Which of the following is an example of a DML command?
- GRANT
  - CREATE
  - DROP
  - INSERT
41. A stored program that is attached to a table or view is called a \_\_\_\_\_:
- Trigger
  - Function
  - Stored Procedure
  - View
42. Which of the following is *not* removed by the DROP TABLE in SQL Server?
- Triggers
  - Permissions
  - Views
  - Stored Procedures
43. Which of the following is inconsistent with Domain information?
- Bitwise constraints
  - Length
  - Data type
  - Default value if any
44. Aggregate functions can be used as expressions in the select list of a SELECT statement:
- True
  - False
45. What are the two common wildcard characters within SQL?
- Period (.); Semi-Colon (;)
  - Semi-Colon (;); Percent Sign (%)
  - Period (.); Underscore (\_)
  - Percent Sign (%); Underscore (\_)
46. SQL query and modification commands make up a(n) \_\_\_\_\_:
- DML
  - XML
  - HTML
  - DQL

47. The language available in SQL Server that adds programming constructs to the SQL language is known as \_\_\_\_\_:
- a. INTERACT-SQL
  - b. VB
  - c. TRANSACT-SQL
  - d. C#
48. In MS SQL the parameter added to a field in order to auto increment that field is:
- a. ADD 1
  - b. IDENTITY
  - c. INCREMENT 1
  - d. None of the above is a correct parameter
49. The identifier of the entity becomes the \_\_\_\_\_ of the corresponding table:
- a. Foreign Key
  - b. Primary Key
  - c. Default Value
  - d. None of the above
50. A table's Permissions are a set of defined levels of access to a securable and are applied individually or collectively to a securable:
- a. True
  - b. False