

IT Database 300 Questions with Answers

– By Durgesh StudyHub

1. Which of the following is a database management system?

- a) Oracle
- b) Python
- c) HTML
- d) Linux

☒ **Answer:** a) Oracle

2. What does DBMS stand for?

- a) Database Machine System
- b) Database Management System
- c) Data Backup Management System
- d) Database Manipulation Server

☒ **Answer:** b) Database Management System

3. Which of the following is NOT a type of database model?

- a) Hierarchical
- b) Relational
- c) Network
- d) HTML

☒ **Answer:** d) HTML

4. In a relational database, data is organized into:

- a) Trees
- b) Tables
- c) Lists
- d) Arrays

☒ **Answer:** b) Tables

5. A table is also known as a:

- a) Row
- b) Column
- c) Relation
- d) Attribute

☒ **Answer:** c) Relation

6. The columns in a table are also called:

- a) Tuples
- b) Attributes
- c) Fields
- d) Records

☒ **Answer:** b) Attributes

7. A row in a table represents a:

- a) Field
- b) Record
- c) Schema
- d) Key

☒ **Answer:** b) Record

8. Which of the following uniquely identifies a record in a table?

- a) Primary Key
- b) Foreign Key
- c) Secondary Key
- d) Super Key

☒ **Answer:** a) Primary Key

9. Which of the following is used to establish a link between two tables?

- a) Primary Key
- b) Foreign Key
- c) Candidate Key
- d) Super Key

☒ **Answer:** b) Foreign Key

10. SQL stands for:

- a) Structured Query Language
- b) Simple Query Language
- c) Sequential Query Language
- d) Standard Query Logic

☒ **Answer:** a) Structured Query Language

11. Which SQL statement is used to extract data from a database?

- a) GET
- b) SELECT
- c) OPEN
- d) EXTRACT

☒ **Answer:** b) SELECT

12. Which SQL command is used to insert new data into a table?

- a) UPDATE
- b) ADD
- c) INSERT INTO
- d) PUT

☒ **Answer:** c) INSERT INTO

13. To remove a table from the database, use:

- a) DELETE TABLE
- b) DROP TABLE
- c) REMOVE TABLE
- d) CLEAR TABLE

☒ **Answer:** b) DROP TABLE

14. Which clause is used to filter records in SQL?

- a) FILTER
- b) WHERE
- c) HAVING
- d) SORT

☒ **Answer:** b) WHERE

15. The command used to modify existing records in a table is:

- a) CHANGE
- b) UPDATE
- c) MODIFY
- d) ALTER

☒ **Answer:** b) UPDATE

16. Which SQL statement sorts the result-set?

- a) SORT BY
- b) ORDER
- c) ORDER BY
- d) GROUP BY

☒ **Answer:** c) ORDER BY

17. Which keyword is used to combine results from two tables?

- a) COMBINE
- b) JOIN
- c) MERGE
- d) UNION

☒ **Answer:** b) JOIN

18. Which of these ensures data integrity in a database?

- a) Keys and Constraints
- b) Tables
- c) Queries
- d) Triggers

☒ **Answer:** a) Keys and Constraints

19. What is normalization in a database?

- a) Data duplication
- b) Reducing redundancy
- c) Data backup
- d) Creating indexes

☒ **Answer:** b) Reducing redundancy

20. Which normal form removes transitive dependency?

- a) 1NF
- b) 2NF
- c) 3NF
- d) BCNF

☒ **Answer:** c) 3NF

21. Which SQL keyword is used to group rows with the same values?

- a) ORDER BY
- b) GROUP BY
- c) SUM
- d) UNIQUE

☒ **Answer:** b) GROUP BY

22. What is the purpose of the HAVING clause?

- a) Filter rows before grouping
- b) Filter groups after grouping
- c) Sort rows
- d) Count rows

☒ **Answer:** b) Filter groups after grouping

23. Which of the following is a DDL command?

- a) SELECT
- b) UPDATE
- c) CREATE
- d) INSERT

☒ **Answer:** c) CREATE

24. DML stands for:

- a) Data Manipulation Language
- b) Data Markup Language
- c) Database Management Language
- d) Data Model Language

☒ **Answer:** a) Data Manipulation Language

25. Which SQL command is used to remove all records but not the table?

- a) DROP
- b) ERASE
- c) TRUNCATE
- d) DELETE

☒ **Answer:** c) TRUNCATE

26. Which of the following is a DCL (Data Control Language) command?

- a) GRANT
- b) CREATE
- c) SELECT
- d) DROP

☒ **Answer:** a) GRANT

27. The command used to revoke privileges in SQL is:

- a) CANCEL
- b) REVOKE
- c) REMOVE
- d) DELETE

☒ **Answer:** b) REVOKE

28. The term ACID in database stands for:

- a) Atomicity, Consistency, Isolation, Durability
- b) Access, Control, Integrity, Durability
- c) Accuracy, Consistency, Isolation, Data
- d) Atomicity, Control, Index, Data

☒ **Answer:** a) Atomicity, Consistency, Isolation, Durability

29. What is a transaction in a database?

- a) A single SQL command
- b) A logical unit of work
- c) A backup file
- d) A table

☒ **Answer:** b) A logical unit of work

30. Which of the following commands saves the changes made during a transaction?

- a) SAVE
- b) COMMIT
- c) APPLY
- d) INSERT

☒ **Answer:** b) COMMIT

31. Which command is used to undo the changes in a transaction?

- a) DELETE
- b) ROLLBACK
- c) CANCEL
- d) UNDO

☒ **Answer:** b) ROLLBACK

32. What is an index in a database?

- a) Duplicate of table
- b) Structure that speeds up searches
- c) Backup copy
- d) Primary key

☒ **Answer:** b) Structure that speeds up searches

33. Which of the following is NOT a valid SQL constraint?

- a) CHECK
- b) DEFAULT
- c) LIMIT
- d) UNIQUE

☒ **Answer:** c) LIMIT

34. Which constraint ensures that a column cannot have NULL values?

- a) CHECK
- b) NOT NULL
- c) UNIQUE
- d) DEFAULT

☒ **Answer:** b) NOT NULL

35. What is a foreign key used for?

- a) To uniquely identify each record
- b) To enforce referential integrity
- c) To make data unique
- d) To store large text

☒ **Answer:** b) To enforce referential integrity

36. A schema is:

- a) A SQL command
- b) The overall logical structure of the database
- c) A record
- d) A data file

☒ **Answer:** b) The overall logical structure of the database

37. What does ER diagram represent?

- a) Entity Relationship Model
- b) Extended Relation Map
- c) External Report
- d) Entity Relation Model

☒ **Answer:** a) Entity Relationship Model

38. Which of these symbols represents a relationship in an ER diagram?

- a) Rectangle
- b) Diamond
- c) Oval
- d) Circle

☒ **Answer:** b) Diamond

39. Which symbol represents an entity in ER diagram?

- a) Rectangle
- b) Diamond
- c) Oval
- d) Circle

☒ **Answer:** a) Rectangle

40. Which symbol represents an attribute in ER diagram?

- a) Rectangle
- b) Diamond
- c) Oval
- d) Triangle

☒ **Answer:** c) Oval

41. What is a weak entity?

- a) Entity that has its own primary key
- b) Entity that depends on another entity
- c) Entity with composite attributes
- d) Entity without attributes

☒ **Answer:** b) Entity that depends on another entity

42. In SQL, the 'LIKE' operator is used for:

- a) Arithmetic operation
- b) Pattern matching
- c) Logical operation
- d) Sorting

☒ **Answer:** b) Pattern matching

43. Which of the following operators is used with the WHERE clause?

- a) BETWEEN
- b) LIKE
- c) IN
- d) All of the above

☒ **Answer:** d) All of the above

44. Which SQL aggregate function returns the total number of records?

- a) SUM()
- b) COUNT()
- c) MAX()
- d) AVG()

☒ **Answer:** b) COUNT()

45. Which function returns the highest value in a column?

- a) MAX()
- b) HIGH()
- c) TOP()
- d) LIMIT()

☒ **Answer:** a) MAX()

46. Which clause is used to filter the groups created by GROUP BY?

- a) HAVING
- b) WHERE
- c) ORDER BY
- d) DISTINCT

☒ **Answer:** a) HAVING

47. Which of the following commands is a part of TCL (Transaction Control Language)?

- a) COMMIT
- b) ROLLBACK
- c) SAVEPOINT
- d) All of the above

☒ **Answer:** d) All of the above

48. A database that stores data in the form of objects is called:

- a) Object-Oriented Database
- b) Hierarchical Database
- c) Network Database
- d) Relational Database

☒ **Answer:** a) Object-Oriented Database

49. Which of the following is a disadvantage of file-based systems?

- a) Data redundancy
- b) Data sharing
- c) High security
- d) Reduced data inconsistency

☒ **Answer:** a) Data redundancy

50. Which of the following prevents unauthorized access to the database?

- a) Constraints
- b) Security
- c) Integrity
- d) Redundancy

☒ **Answer:** b) Security

51. Which of the following is an example of a relational database?

- a) MS Word
- b) MySQL
- c) Excel
- d) Notepad

☒ **Answer:** b) MySQL

52. Which SQL keyword eliminates duplicate rows in the result?

- a) UNIQUE
- b) DISTINCT
- c) REMOVE
- d) DELETE

☒ **Answer:** b) DISTINCT

53. What is the default sorting order in SQL?

- a) Descending
- b) Ascending
- c) Random
- d) None

☒ **Answer:** b) Ascending

54. The command `ALTER TABLE` is used to:

- a) Modify table structure
- b) Insert records
- c) Delete records
- d) Drop the table

☒ **Answer:** a) Modify table structure

55. Which of the following commands is used to rename a table?

- a) `MODIFY TABLE`
- b) `RENAME TABLE`
- c) `CHANGE TABLE`
- d) `UPDATE TABLE`

☒ **Answer:** b) `RENAME TABLE`

56. What is a view in SQL?

- a) A virtual table based on query result
- b) A table stored on disk
- c) A temporary file
- d) A constraint

☒ **Answer:** a) A virtual table based on query result

57. Which of the following is true about views?

- a) They store physical data
- b) They are always updatable
- c) They can restrict access to specific data
- d) They can't be used in queries

☒ **Answer:** c) They can restrict access to specific data

58. Which of the following commands removes all rows from a table but not the structure?

- a) DELETE
- b) DROP
- c) TRUNCATE
- d) CLEAR

☒ **Answer:** c) TRUNCATE

59. Which SQL statement is used to retrieve unique records?

- a) SELECT UNIQUE
- b) SELECT DISTINCT
- c) SELECT DIFFERENT
- d) SELECT ONLY

☒ **Answer:** b) SELECT DISTINCT

60. A collection of related data tables is known as a:

- a) Database
- b) Spreadsheet
- c) Data warehouse
- d) Data file

☒ **Answer:** a) Database

61. Which of the following is a feature of RDBMS?

- a) Data redundancy
- b) Data independence
- c) Manual data linking
- d) No relationships

☒ **Answer:** b) Data independence

62. What is a surrogate key?

- a) A duplicate primary key
- b) A system-generated unique key
- c) A foreign key
- d) A composite key

☒ **Answer:** b) A system-generated unique key

63. The SQL command to delete specific rows from a table is:

- a) REMOVE
- b) ERASE
- c) DELETE
- d) TRUNCATE

☒ **Answer:** c) DELETE

64. Which of the following SQL functions returns the average value?

- a) COUNT()
- b) AVG()
- c) MAX()
- d) SUM()

☒ **Answer:** b) AVG()

65. A NULL value in a database means:

- a) Zero value
- b) No value assigned
- c) Space character
- d) Empty string

☒ **Answer:** b) No value assigned

66. Which of the following represents a one-to-many relationship?

- a) One student has one ID
- b) One teacher teaches many students
- c) Many students study many subjects
- d) One book is in one shelf

☒ **Answer:** b) One teacher teaches many students

67. Which of these constraints ensures that a value must exist in another table?

- a) FOREIGN KEY
- b) PRIMARY KEY
- c) UNIQUE
- d) CHECK

☒ **Answer:** a) FOREIGN KEY

68. Which of the following commands is used to change a column data type?

- a) UPDATE
- b) MODIFY
- c) ALTER TABLE
- d) RENAME

☒ **Answer:** c) ALTER TABLE

69. Which of these terms refers to rules that ensure accuracy and consistency of data?

- a) Integrity Constraints
- b) Triggers
- c) Transactions
- d) Backups

☒ **Answer:** a) Integrity Constraints

70. Which SQL clause is used to specify the table from which data is retrieved?

- a) WHERE
- b) SELECT
- c) FROM
- d) ORDER BY

☒ **Answer:** c) FROM

71. Which command is used to remove a database?

- a) DROP DATABASE
- b) DELETE DATABASE
- c) ERASE DATABASE
- d) REMOVE DATABASE

☒ **Answer:** a) DROP DATABASE

72. The SQL function `NOW()` returns:

- a) The current time
- b) The current date and time
- c) The system version
- d) The last inserted ID

☒ **Answer:** b) The current date and time

73. Which of the following commands is used to list all databases in MySQL?

- a) SHOW ALL
- b) SHOW DATABASES
- c) LIST DATABASES
- d) DISPLAY DATABASES

☒ **Answer:** b) SHOW DATABASES

74. What is a trigger in SQL?

- a) A type of view
- b) A block of code executed automatically when an event occurs
- c) A query
- d) A constraint

☒ **Answer:** b) A block of code executed automatically when an event occurs

75. Which of the following is used to ensure actions are executed automatically on certain changes?

- a) Triggers
- b) Views
- c) Indexes
- d) Constraints

☒ **Answer:** a) Triggers

76. What is a stored procedure?

- a) A precompiled set of SQL statements
- b) A temporary query
- c) A view
- d) A function returning a single value

☒ **Answer:** a) A precompiled set of SQL statements

77. Which of the following improves the speed of data retrieval?

- a) Index
- b) View
- c) Trigger
- d) Constraint

☒ **Answer:** a) Index

78. Which of the following allows multiple users to access the database at the same time?

- a) Concurrency control
- b) Deadlock
- c) Rollback
- d) Backup

☒ **Answer:** a) Concurrency control

79. Which of these prevents two users from updating the same record simultaneously?

- a) Locking
- b) Backup
- c) Indexing
- d) Commit

☒ **Answer:** a) Locking

80. Which of the following SQL statements is used to create a new table?

- a) INSERT
- b) CREATE TABLE
- c) ALTER TABLE
- d) ADD TABLE

☒ **Answer:** b) CREATE TABLE

81. What is a data dictionary?

- a) A repository of metadata
- b) A collection of data
- c) A table
- d) A query result

☒ **Answer:** a) A repository of metadata

82. Which command is used to display table structure?

- a) DESCRIBE
- b) STRUCTURE
- c) SHOW TABLE
- d) INFO

☒ **Answer:** a) DESCRIBE

83. Which of the following is NOT a SQL data type?

- a) CHAR
- b) VARCHAR
- c) NUMBER
- d) POINTER

☒ **Answer:** d) POINTER

84. The process of ensuring only authorized users can access data is called:

- a) Authentication
- b) Encryption
- c) Data Security
- d) Authorization

☒ **Answer:** c) Data Security

85. Which SQL statement combines data from multiple tables?

- a) UNION
- b) JOIN
- c) INTERSECT
- d) ALL

☒ **Answer:** b) JOIN

86. Which SQL clause is used to rename a column or table in output?

- a) AS
- b) RENAME
- c) CHANGE
- d) ALIAS

☒ **Answer:** a) AS

87. What is the main purpose of normalization?

- a) To minimize redundancy and dependency
- b) To increase redundancy
- c) To merge tables
- d) To create backups

☒ **Answer:** a) To minimize redundancy and dependency

88. Which normal form deals with partial dependency?

- a) 1NF
- b) 2NF
- c) 3NF
- d) BCNF

☒ **Answer:** b) 2NF

89. Which of the following is a non-relational database?

- a) MongoDB
- b) MySQL
- c) Oracle
- d) PostgreSQL

☒ **Answer:** a) MongoDB

90. In SQL, which operator is used to combine the results of two SELECT statements?

- a) JOIN
- b) UNION
- c) MERGE
- d) APPEND

☒ **Answer:** b) UNION

91. Which of the following SQL commands is used to rename a database?

- a) RENAME DATABASE
- b) ALTER DATABASE
- c) MODIFY DATABASE
- d) UPDATE DATABASE

☒ **Answer:** b) ALTER DATABASE

92. What does BCNF stand for?

- a) Boyce-Codd Normal Form
- b) Binary Code Normal Form
- c) Base Column Normal Form
- d) Boyce Column Normal Form

☒ **Answer:** a) Boyce-Codd Normal Form

93. Which of the following commands is used to create a copy of a table?

- a) CREATE TABLE AS SELECT
- b) DUPLICATE TABLE
- c) COPY TABLE
- d) CLONE TABLE

☒ **Answer:** a) CREATE TABLE AS SELECT

94. Which SQL command returns the current database name?

- a) SELECT DATABASE()
- b) SHOW DATABASE()
- c) GET DATABASE()
- d) CURRENT DATABASE()

☒ **Answer:** a) SELECT DATABASE()

95. Which SQL statement is used to find the total of a numeric column?

- a) SUM()
- b) COUNT()
- c) AVG()
- d) MAX()

☒ **Answer:** a) SUM()

96. Which of the following is true about the DELETE command?

- a) It removes table structure
- b) It removes all rows without WHERE clause
- c) It cannot be rolled back
- d) It removes database

☒ **Answer:** b) It removes all rows without WHERE clause

97. Which SQL keyword is used to check for NULL values?

- a) IS NULL
- b) EQUAL NULL
- c) = NULL
- d) CHECK NULL

☒ **Answer:** a) IS NULL

98. Which of the following statements is used to retrieve all columns from a table?

- a) SELECT ALL FROM table_name
- b) SELECT * FROM table_name
- c) SELECT # FROM table_name
- d) DISPLAY FROM table_name

☒ **Answer:** b) SELECT * FROM table_name

99. What does the SQL function `LENGTH()` do?

- a) Returns number of rows
- b) Returns length of a string
- c) Returns size of a table
- d) Returns max value

☒ **Answer:** b) Returns length of a string

100. What is the full form of RDBMS?

- a) Relational Database Management System
- b) Remote Database Management Server
- c) Real-time Data Management System
- d) Reduced Database Memory System

☒ **Answer:** a) Relational Database Management System

101. What is the command to display all tables in a database?

- a) SHOW TABLES
- b) DISPLAY TABLES
- c) VIEW TABLES
- d) LIST TABLES

☒ **Answer:** a) SHOW TABLES

102. What is the main advantage of a relational database?

- a) Easy to print
- b) Data redundancy
- c) Data consistency and relationships
- d) Slow performance

☒ **Answer:** c) Data consistency and relationships

103. Which of the following is a DDL command?

- a) UPDATE
- b) SELECT
- c) DROP
- d) GRANT

☒ **Answer:** c) DROP

104. The process of converting ER model into a relational schema is called:

- a) Mapping
- b) Normalization
- c) Transformation
- d) Indexing

☒ **Answer:** a) Mapping

105. Which of these is NOT a valid SQL JOIN type?

- a) INNER JOIN
- b) OUTER JOIN
- c) LEFT JOIN
- d) CENTER JOIN

☒ **Answer:** d) CENTER JOIN

106. The process of restoring data from a backup is called:

- a) Backup
- b) Recovery
- c) Transaction
- d) Rollback

☒ **Answer:** b) Recovery

107. Which of the following best defines data redundancy?

- a) Data stored in multiple locations unnecessarily
- b) Data inconsistency
- c) Data security
- d) Data normalization

☒ **Answer:** a) Data stored in multiple locations unnecessarily

108. Which of the following statements about the primary key is FALSE?

- a) It must contain unique values
- b) It can contain NULL values
- c) It uniquely identifies each row
- d) A table can have only one primary key

☒ **Answer:** b) It can contain NULL values

109. Which command is used to backup a database in SQL Server?

- a) SAVE DATABASE
- b) BACKUP DATABASE
- c) COPY DATABASE
- d) STORE DATABASE

☒ **Answer:** b) BACKUP DATABASE

110. Which of the following is an attribute that can take multiple values?

- a) Simple attribute
- b) Multivalued attribute
- c) Composite attribute
- d) Derived attribute

☒ **Answer:** b) Multivalued attribute

111. What is a derived attribute?

- a) Attribute calculated from other attributes
- b) Attribute with multiple values
- c) Attribute that stores primary key
- d) Attribute with foreign key

☒ **Answer:** a) Attribute calculated from other attributes

112. Which of the following is an example of a one-to-one relationship?

- a) Student and Class
- b) Country and Capital
- c) Teacher and Students
- d) Product and Category

☒ **Answer:** b) Country and Capital

113. Which command in SQL modifies table constraints?

- a) ALTER TABLE
- b) MODIFY
- c) CHANGE
- d) UPDATE

☒ **Answer:** a) ALTER TABLE

114. The SQL clause that combines rows from two or more tables based on a related column is called:

- a) MERGE
- b) JOIN
- c) LINK
- d) RELATE

☒ **Answer:** b) JOIN

115. Which type of join returns all rows from both tables, matching where possible?

- a) INNER JOIN
- b) LEFT JOIN
- c) RIGHT JOIN
- d) FULL OUTER JOIN

☒ **Answer:** d) FULL OUTER JOIN

116. What does SQL's IN operator do?

- a) Checks a value against a list of values
- b) Checks if value is NULL
- c) Inserts new records
- d) Performs arithmetic

☒ **Answer:** a) Checks a value against a list of values

117. Which SQL keyword is used to return records when a condition is met in at least one table?

- a) UNION
- b) INTERSECT
- c) JOIN
- d) UNION ALL

☒ **Answer:** a) UNION

118. What does SQL keyword DISTINCT ensure?

- a) Eliminates duplicate rows
- b) Orders results alphabetically
- c) Counts total rows

d) Groups similar rows

☒ **Answer:** a) Eliminates duplicate rows

119. Which of these commands is used to rename a column in MySQL?

a) RENAME COLUMN

b) CHANGE

c) ALTER TABLE ... RENAME COLUMN

d) MODIFY COLUMN

☒ **Answer:** c) ALTER TABLE ... RENAME COLUMN

120. Which of these stores procedures for faster execution?

a) Stored procedure cache

b) Temporary table

c) View

d) Log file

☒ **Answer:** a) Stored procedure cache

121. What does the term "metadata" mean?

a) Data about data

b) Duplicate data

c) Hidden data

d) Backup data

☒ **Answer:** a) Data about data

122. Which SQL clause specifies the search condition for rows?

a) HAVING

b) WHERE

c) ORDER BY

d) FROM

☒ **Answer:** b) WHERE

123. The smallest unit of data in a database is a:

a) Record

b) Field

c) File

d) Attribute

☒ **Answer:** b) Field

124. Which SQL clause is used to limit the number of returned rows?

a) LIMIT

b) RESTRICT

c) TOP

d) STOP

☒ **Answer:** a) LIMIT

125. Which of the following is NOT a valid aggregate function?

a) SUM()

b) COUNT()

- c) AVG()
- d) PRINT()

☒ **Answer:** d) PRINT()

126. Which of the following statements best describes a candidate key?

- a) A key that can uniquely identify a record
- b) A key that duplicates a primary key
- c) A foreign key reference
- d) A backup key

☒ **Answer:** a) A key that can uniquely identify a record

127. What is a composite key?

- a) A key formed by combining multiple attributes
- b) A duplicate key
- c) A foreign key
- d) A temporary key

☒ **Answer:** a) A key formed by combining multiple attributes

128. What is a unique key?

- a) A key that allows duplicate values
- b) A key that ensures all values are different
- c) A foreign key
- d) A backup key

☒ **Answer:** b) A key that ensures all values are different

129. Which SQL command is used to rename a database object?

- a) RENAME
- b) ALTER
- c) CHANGE
- d) MODIFY

☒ **Answer:** a) RENAME

130. What is the default value of a column if none is specified and NOT NULL is not applied?

- a) 0
- b) NULL
- c) Empty string
- d) Undefined

☒ **Answer:** b) NULL

131. Which SQL statement copies rows from one table to another?

- a) INSERT INTO ... SELECT
- b) COPY
- c) TRANSFER
- d) MOVE

☒ **Answer:** a) INSERT INTO ... SELECT

132. The process of ensuring data correctness and consistency is called:

- a) Data integrity
- b) Data redundancy
- c) Data compression
- d) Data backup

☒ **Answer:** a) Data integrity

133. Which of these SQL clauses groups identical data together?

- a) GROUP BY
- b) ORDER BY
- c) HAVING
- d) MERGE

☒ **Answer:** a) GROUP BY

134. What is the use of the SQL keyword “BETWEEN”?

- a) Checks if value lies in a range
- b) Compares two tables
- c) Joins two columns
- d) Creates relationship

☒ **Answer:** a) Checks if value lies in a range

135. Which of the following represents data in tabular form?

- a) Table
- b) Schema
- c) Field
- d) File

☒ **Answer:** a) Table

136. Which of the following best describes a tuple?

- a) A row in a table
- b) A column in a table
- c) A key
- d) A file

☒ **Answer:** a) A row in a table

137. Which SQL statement is used to modify data in a table?

- a) UPDATE
- b) INSERT
- c) CREATE
- d) DROP

☒ **Answer:** a) UPDATE

138. What is the function of the SQL IS NOT NULL operator?

- a) Finds rows that have NULL values
- b) Finds rows that have non-NULL values
- c) Removes NULL values
- d) Converts NULL to 0

☒ **Answer:** b) Finds rows that have non-NULL values

139. What does the SQL function `ROUND()` do?

- a) Rounds numeric values to a specified precision
- b) Returns average
- c) Returns maximum
- d) Converts integers to decimals

☒ **Answer:** a) Rounds numeric values to a specified precision

140. Which function returns the smallest value in a column?

- a) `MIN()`
- b) `SMALL()`
- c) `LOW()`
- d) `LEAST()`

☒ **Answer:** a) `MIN()`

141. Which of the following can store binary data in SQL?

- a) `BLOB`
- b) `VARCHAR`
- c) `CHAR`
- d) `TEXT`

☒ **Answer:** a) `BLOB`

142. Which function returns part of a string?

- a) `MID()` or `SUBSTRING()`
- b) `PART()`
- c) `SPLIT()`
- d) `PIECE()`

☒ **Answer:** a) `MID()` or `SUBSTRING()`

143. Which command permanently removes a table structure and its data?

- a) `DELETE`
- b) `DROP`
- c) `TRUNCATE`
- d) `CLEAR`

☒ **Answer:** b) `DROP`

144. What is the use of the SQL keyword “`DEFAULT`”?

- a) To set a default value for a column
- b) To create a foreign key
- c) To make column unique
- d) To create backup

☒ **Answer:** a) To set a default value for a column

145. Which constraint ensures that a specific condition is met in a column?

- a) `CHECK`
- b) `DEFAULT`
- c) `FOREIGN KEY`
- d) `PRIMARY KEY`

☒ **Answer:** a) `CHECK`

146. Which SQL function counts unique values?

- a) COUNT(DISTINCT column_name)
- b) UNIQUE COUNT()
- c) COUNT UNIQUE()
- d) COUNT DIFFERENT()

☒ **Answer:** a) COUNT(DISTINCT column_name)

147. The process of converting raw data into useful information is called:

- a) Data processing
- b) Data collection
- c) Data duplication
- d) Data mining

☒ **Answer:** a) Data processing

148. Which SQL keyword is used to rename a table output temporarily?

- a) AS
- b) ALIAS
- c) RENAME
- d) TEMP

☒ **Answer:** a) AS

149. Which data type is used to store large text in SQL?

- a) TEXT
- b) CHAR
- c) NUMBER
- d) DATE

☒ **Answer:** a) TEXT

150. The command used to remove duplicate rows from the result set is:

- a) SELECT DISTINCT
- b) SELECT UNIQUE
- c) REMOVE DUPLICATE
- d) FILTER DISTINCT

☒ **Answer:** a) SELECT DISTINCT

176. Which of the following is true about stored procedures?

- a) They cannot accept parameters
- b) They are slower than SQL queries
- c) They are precompiled and faster
- d) They can't be reused

☒ **Answer:** c) They are precompiled and faster

177. Which of the following is used to uniquely identify a record even if the primary key is not available?

- a) Alternate Key
- b) Super Key
- c) Foreign Key
- d) Candidate Key

☒ **Answer:** a) Alternate Key

178. Which of the following is NOT a relational operator in SQL?

- a) =
- b) >
- c) <>
- d) CONTAINS

☒ **Answer:** d) CONTAINS

179. Which SQL command is used to change table structure?

- a) MODIFY
- b) UPDATE
- c) ALTER
- d) CHANGE

☒ **Answer:** c) ALTER

180. Which type of join includes all records when there is a match in either table?

- a) Inner Join
- b) Full Outer Join
- c) Left Join
- d) Right Join

☒ **Answer:** b) Full Outer Join

181. The DBMS component that controls data integrity and security is:

- a) Data Definition
- b) Data Control
- c) Data Manipulation
- d) Query Processor

☒ **Answer:** b) Data Control

182. A database index improves:

- a) Data integrity
- b) Data retrieval speed
- c) Data redundancy
- d) Normalization

☒ **Answer:** b) Data retrieval speed

183. Which SQL function returns the total number of rows?

- a) COUNT()
- b) SUM()
- c) TOTAL()
- d) ROWCOUNT()

☒ **Answer:** a) COUNT()

184. What type of key can accept NULL values?

- a) Primary Key
- b) Foreign Key
- c) Super Key
- d) Composite Key

☒ **Answer:** b) Foreign Key

185. Which of the following commands permanently removes a record?

- a) DELETE
- b) ERASE
- c) TRUNCATE
- d) DROP

☒ **Answer:** a) DELETE

186. Which of these is NOT part of the database approach?

- a) Data independence
- b) Redundancy increase
- c) Concurrent access
- d) Security

☒ **Answer:** b) Redundancy increase

187. What does ACID stand for in database systems?

- a) Atomicity, Consistency, Isolation, Durability
- b) Access, Control, Integrity, Dependency
- c) Accuracy, Consistency, Isolation, Delivery
- d) Atomicity, Clarity, Independence, Durability

☒ **Answer:** a) Atomicity, Consistency, Isolation, Durability

188. Which operation in SQL combines rows from two or more tables?

- a) JOIN
- b) UNION
- c) INTERSECT
- d) MINUS

☒ **Answer:** a) JOIN

189. Which SQL clause eliminates duplicate records?

- a) DISTINCT
- b) UNIQUE
- c) CLEAR
- d) DELETE

☒ **Answer:** a) DISTINCT

190. Which of these constraints ensures that a column cannot have NULL values?

- a) NOT NULL
- b) UNIQUE
- c) DEFAULT
- d) PRIMARY KEY

☒ **Answer:** a) NOT NULL

191. The data type used to store a large sequence of characters is:

- a) VARCHAR
- b) CHAR
- c) TEXT
- d) INT

☒ **Answer:** c) TEXT

192. Which keyword is used to remove duplicate values in SQL queries?

- a) UNIQUE
- b) DISTINCT
- c) DELETE
- d) CLEAR

☒ **Answer:** b) DISTINCT

193. Which of the following is used to store a collection of related data?

- a) File
- b) Database
- c) Record
- d) Schema

☒ **Answer:** b) Database

194. A schema in a database defines:

- a) The actual data
- b) The physical files
- c) The structure and relationships of data
- d) The SQL syntax

☒ **Answer:** c) The structure and relationships of data

195. What does ER in ER diagram stand for?

- a) Entity Relationship
- b) Extended Relation
- c) External Resource
- d) Extra Relation

☒ **Answer:** a) Entity Relationship

196. Which is the lowest level of data abstraction?

- a) Physical Level
- b) Logical Level
- c) View Level
- d) Schema Level

☒ **Answer:** a) Physical Level

197. Which of the following is NOT a DCL command?

- a) GRANT
- b) REVOKE
- c) DENY
- d) COMMIT

☒ **Answer:** d) COMMIT

198. What does RDBMS stand for?

- a) Relational Database Management System
- b) Random Database Management System
- c) Real-time Database Maintenance System
- d) Reliable Database Management Software

☒ **Answer:** a) Relational Database Management System

199. Which SQL statement is used to create a new database?

- a) NEW DATABASE
- b) MAKE DATABASE
- c) CREATE DATABASE
- d) ADD DATABASE

☒ **Answer:** c) CREATE DATABASE

200. Which of the following is used to ensure referential integrity?

- a) Foreign Key
- b) Primary Key
- c) Composite Key
- d) Candidate Key

☒ **Answer:** a) Foreign Key

201. Which of these is a DML command?

- a) SELECT
- b) CREATE
- c) ALTER
- d) DROP

☒ **Answer:** a) SELECT

202. Which of the following statements is true about the DELETE command?

- a) It removes the table structure
- b) It removes all rows permanently without rollback
- c) It removes specific rows and can be rolled back
- d) It removes database permanently

☒ **Answer:** c) It removes specific rows and can be rolled back

203. Which command is used to save changes in a transaction?

- a) SAVE
- b) COMMIT
- c) END
- d) APPLY

☒ **Answer:** b) COMMIT

204. Which command is used to undo changes before commit?

- a) CANCEL
- b) UNDO
- c) ROLLBACK
- d) DELETE

☒ **Answer:** c) ROLLBACK

205. Which command is used to define access permissions in SQL?

- a) GRANT
- b) ACCESS
- c) ALLOW
- d) ENABLE

☒ **Answer:** a) GRANT

206. Which SQL statement is used to remove access rights?

- a) DELETE
- b) REVOKE
- c) CANCEL
- d) REMOVE

☒ **Answer:** b) REVOKE

207. Which of the following is NOT a SQL aggregate function?

- a) SUM()
- b) AVG()
- c) TOTAL()
- d) COUNT()

☒ **Answer:** c) TOTAL()

208. The command used to create an index is:

- a) CREATE INDEX
- b) MAKE INDEX
- c) ADD INDEX
- d) BUILD INDEX

☒ **Answer:** a) CREATE INDEX

209. A database transaction must be:

- a) Consistent
- b) Independent
- c) Temporary
- d) Complicated

☒ **Answer:** a) Consistent

210. What is a trigger in SQL?

- a) A stored procedure that runs automatically
- b) A type of join
- c) A DDL statement
- d) A database table

☒ **Answer:** a) A stored procedure that runs automatically

211. What is a cursor used for?

- a) To iterate over result sets row by row
- b) To store data permanently
- c) To delete records
- d) To connect databases

☒ **Answer:** a) To iterate over result sets row by row

212. Which of the following represents one-to-many relationship?

- a) One teacher teaches many students
- b) Many teachers teach one student
- c) One student teaches one teacher
- d) Many teachers teach many students

☒ **Answer:** a) One teacher teaches many students

213. A transaction is a ____ unit of work.

- a) Partial
- b) Logical
- c) Physical
- d) Temporary

☒ **Answer:** b) Logical

214. Which clause specifies the order of result-set in ascending or descending order?

- a) GROUP BY
- b) ORDER BY
- c) SORT BY
- d) ARRANGE BY

☒ **Answer:** b) ORDER BY

215. What is the default sorting order in SQL?

- a) Descending
- b) Random
- c) Ascending
- d) None

☒ **Answer:** c) Ascending

216. What is denormalization?

- a) Combining normalized tables to improve performance
- b) Splitting tables
- c) Removing primary keys
- d) Increasing redundancy

☒ **Answer:** a) Combining normalized tables to improve performance

217. What is a view in SQL?

- a) A virtual table based on a query
- b) A physical copy of a table
- c) A database file
- d) A form of report

☒ **Answer:** a) A virtual table based on a query

218. Which command updates existing data in a table?

- a) INSERT
- b) MODIFY
- c) UPDATE
- d) ALTER

☒ **Answer:** c) UPDATE

219. What is the function of the BETWEEN operator?

- a) Selects records within a range
- b) Compares two tables
- c) Performs arithmetic
- d) Deletes values between rows

☒ **Answer:** a) Selects records within a range

220. Which operator is used for pattern matching in SQL?

- a) MATCH
- b) LIKE
- c) EQUALS
- d) COMPARE

☒ **Answer:** b) LIKE

221. The wildcard character used for multiple characters in SQL LIKE clause is:

- a) #
- b) _
- c) %
- d) *

☒ **Answer:** c) %

222. What does NULL represent in a database?

- a) Zero
- b) Empty string
- c) Missing or unknown value
- d) Space character

☒ **Answer:** c) Missing or unknown value

223. What does the UNION operator do?

- a) Combines result sets and removes duplicates
- b) Merges tables permanently
- c) Filters duplicates
- d) Joins unrelated data

☒ **Answer:** a) Combines result sets and removes duplicates

224. Which of the following is a property of a relation?

- a) Each cell has multiple values
- b) Rows are unordered
- c) Columns may repeat
- d) Rows can be identical

☒ **Answer:** b) Rows are unordered

225. Which of the following is not part of the DBMS architecture?

- a) Presentation Layer
- b) Database Layer
- c) Application Layer
- d) Security Layer

☒ **Answer:** a) Presentation Layer

226. Which SQL function is used to find the largest value?

- a) MAX()
- b) BIG()
- c) HIGH()
- d) LARGE()

☒ **Answer:** a) MAX()

227. Which SQL function is used to find the smallest value?

- a) LOW()
- b) MIN()
- c) SMALL()
- d) LEAST()

☒ **Answer:** b) MIN()

228. Which constraint ensures that all values in a column are different?

- a) UNIQUE
- b) PRIMARY
- c) DISTINCT
- d) NOT NULL

☒ **Answer:** a) UNIQUE

229. What is the purpose of the DEFAULT constraint?

- a) Sets a predefined value when none is given
- b) Prevents null values
- c) Ensures uniqueness
- d) Checks conditions

☒ **Answer:** a) Sets a predefined value when none is given

230. Which of these is NOT a component of a DBMS?

- a) Query Processor
- b) Data Dictionary
- c) Operating System
- d) Storage Manager

☒ **Answer:** c) Operating System

231. Which of the following represents data about data?

- a) Metadata
- b) Megadata
- c) Microdata
- d) Hyperdata

☒ **Answer:** a) Metadata

232. Which of the following allows multiple users to access the database at once?

- a) Concurrency control
- b) Data encryption
- c) Authorization
- d) Indexing

☒ **Answer:** a) Concurrency control

233. What is the purpose of checkpoint in a database?

- a) Backup data
- b) Save state during transactions
- c) Restart system
- d) Delete logs

☒ **Answer:** b) Save state during transactions

234. Which statement is true about normalization?

- a) Increases redundancy
- b) Removes redundancy
- c) Increases data anomalies
- d) Decreases data integrity

☒ **Answer:** b) Removes redundancy

235. Which normal form deals with partial dependency?

- a) 1NF
- b) 2NF
- c) 3NF
- d) BCNF

☒ **Answer:** b) 2NF

236. Which of the following ensures database recovery after a crash?

- a) Backup and Logs
- b) Index
- c) View
- d) Schema

☒ **Answer:** a) Backup and Logs

237. Which key is formed by combining two or more columns?

- a) Primary Key
- b) Composite Key
- c) Candidate Key
- d) Super Key

☒ **Answer:** b) Composite Key

238. What is data redundancy?

- a) Repetition of data
- b) Missing data
- c) Duplicate rows
- d) Null records

☒ **Answer:** a) Repetition of data

239. What is the full form of SQL?

- a) Structured Query Language
- b) Simple Question Language
- c) Standard Query Language
- d) Sequential Query Logic

☒ **Answer:** a) Structured Query Language

240. The command used to delete a database is:

- a) DROP DATABASE
- b) REMOVE DATABASE
- c) DELETE DATABASE
- d) CLEAR DATABASE

☒ **Answer:** a) DROP DATABASE

241. Which function in SQL returns the current date?

- a) NOW()
- b) TODAY()
- c) DATE()
- d) CURRENT_DATE()

☒ **Answer:** a) NOW()

242. What is a surrogate key?

- a) Artificial key generated by the system
- b) Natural key from data
- c) Foreign key
- d) Redundant key

☒ **Answer:** a) Artificial key generated by the system

243. A transaction must satisfy how many ACID properties?

- a) 2
- b) 3
- c) 4
- d) 5

☒ **Answer:** c) 4

244. Which of the following is NOT an example of RDBMS?

- a) MySQL
- b) Oracle
- c) MongoDB
- d) PostgreSQL

☒ **Answer:** c) MongoDB

245. What is the use of IS NULL operator?

- a) To test for null values
- b) To test for zero values
- c) To test for blank spaces
- d) To test for duplicates

☒ **Answer:** a) To test for null values

246. What does the EXISTS operator do?

- a) Checks whether a subquery returns rows
- b) Checks for duplicates
- c) Removes nulls
- d) Counts rows

☒ **Answer:** a) Checks whether a subquery returns rows

247. Which SQL operator combines the results of two SELECT statements and keeps duplicates?

- a) UNION ALL
- b) UNION
- c) JOIN
- d) INTERSECT

☒ **Answer:** a) UNION ALL

248. Which of the following is NOT a valid SQL data type?

- a) INT
- b) FLOAT
- c) STRING
- d) DATE

☒ **Answer:** c) STRING

249. What is the main advantage of indexes?

- a) Faster retrieval
- b) Reduce data size
- c) Avoid redundancy
- d) Increase storage

☒ **Answer:** a) Faster retrieval

250. Which statement is true about COMMIT?

- a) Saves changes permanently
- b) Cancels all changes
- c) Deletes database
- d) Restores data

☒ **Answer:** a) Saves changes permanently