1. What is SQL?
Answer: SQL (Structured Query Language) is a standard language used to manage and manipulate relational databases.

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2. What are the types of SQL commands?
Answer: SQL commands are categorized into:

- DDL (Data Definition Language) – e.g., CREATE, ALTER, DROP
- DML (Data Manipulation Language) – e.g., INSERT, UPDATE, DELETE
- DCL (Data Control Language) – e.g., GRANT, REVOKE
- TCL (Transaction Control Language) – e.g., COMMIT, ROLLBACK
- DQL (Data Query Language) – e.g., SELECT

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3. What is a Primary Key?
Answer: A primary key uniquely identifies each record in a table. It cannot contain NULL or duplicate values.

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4. What is a Foreign Key?
Answer: A foreign key is a field in one table that refers to the primary key in another table. It establishes a relationship between tables.

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5. What is the difference between `WHERE` and `HAVING`?
Answer: `WHERE` filters rows before aggregation, while `HAVING` filters groups after aggregation.

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6. What is normalization?
Answer: Normalization is the process of organizing data to reduce redundancy and improve data integrity in a database.

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7. What is denormalization?
Answer: Denormalization is the process of combining tables to improve read performance by reducing joins.

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8. What is a Join in SQL?
Answer: A join is used to combine rows from two or more tables based on a related column.

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9. What is the difference between `INNER JOIN` and `LEFT JOIN`?
Answer: `INNER JOIN` returns only matching records; `LEFT JOIN` returns all records from the left table and matched records from the right.

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10. What is a View in SQL?
Answer: A view is a virtual table based on the result of a SQL query. It doesn't store data but shows data from underlying tables.

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11. What is a constraint in SQL?
Answer: Constraints are rules applied to columns to enforce data integrity. Examples include NOT NULL, UNIQUE, PRIMARY KEY, FOREIGN KEY, CHECK.

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12. What is a NULL value?
Answer: NULL represents a missing or unknown value in a column.

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13. What is the difference between `DELETE` and `TRUNCATE`?
Answer: `DELETE` removes specific rows and can be rolled back; `TRUNCATE` removes all rows quickly and cannot be rolled back in some systems.

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14. What is a Unique Key?
Answer: A unique key ensures that all values in a column are different. Unlike the primary key, it can accept one NULL value.

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15. What is an Index in SQL?
Answer: An index is a database object that improves the speed of data retrieval operations on a table.

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16. What is the use of the `DISTINCT` keyword?
Answer: `DISTINCT` is used to return only unique (non-duplicate) values from a column.

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17. What is the difference between `UNION` and `UNION ALL`?
Answer: `UNION` removes duplicate records; `UNION ALL` includes all duplicates.

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18. What is a Subquery?
Answer: A subquery is a query nested inside another query, used to retrieve data to be used by the outer query.

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19. What is a CTE (Common Table Expression)?
Answer: A CTE is a temporary result set that can be referred to within a SELECT, INSERT, UPDATE, or DELETE statement.

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20. What is data integrity?
Answer: Data integrity refers to the accuracy and consistency of data in a database.