

# SQL – TRICKY QUESTIONS

## SQL – TRICKY QUESTIONS & SAFE ANSWERS

(All Companies | All Fresher Roles)

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### ◆ ☐ BASIC LOOKING BUT DANGEROUS TRAPS

Q1. Is NULL equal to 0 or empty string?

✗ Wrong: Yes

**SAFE ANSWER:**

No. NULL represents unknown or missing value.  
It is not equal to 0 or empty string.

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Q2. Can we use = to compare NULL?

✗ Wrong: Yes

**SAFE ANSWER:**

No. NULL should be checked using IS NULL or IS NOT NULL.

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Q3. What is the default order of SELECT execution?

✗ Wrong: SELECT → FROM

**SAFE ANSWER:**

FROM → WHERE → GROUP BY → HAVING → SELECT → ORDER BY

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### ◆ ☐ DELETE / TRUNCATE / DROP (MOST COMMON ELIMINATION)

Q4. DELETE vs TRUNCATE – which is faster?

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✗ Wrong: DELETE

SAFE ANSWER:

TRUNCATE is faster because it removes all rows without logging each row.

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Q5. Can DELETE be rolled back?

✗ Wrong: No

SAFE ANSWER:

Yes, DELETE can be rolled back if transaction is not committed.

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Q6. Can TRUNCATE be rolled back?

✗ Wrong: Yes

SAFE ANSWER:

No. TRUNCATE is a DDL command and cannot be rolled back.

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Q7. What happens to table structure after DELETE?

✗ Wrong: Table removed

SAFE ANSWER:

Table structure remains. Only data is removed.

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❖ WHERE vs HAVING (CLASSIC TRAP)

Q8. Can we use HAVING without GROUP BY?

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✗ Wrong: No

SAFE ANSWER:

Yes, HAVING can be used without GROUP BY, but it is mostly used with GROUP BY.

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Q9. Difference between WHERE and HAVING?

✗ Wrong: Both filter data

SAFE ANSWER:

WHERE filters rows before grouping.

HAVING filters groups after aggregation.

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❖ 4 PRIMARY KEY & CONSTRAINT TRAPS

Q10. Can primary key contain NULL?

✗ Wrong: Yes

SAFE ANSWER:

No. Primary key does not allow NULL or duplicate values.

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Q11. Can a table have multiple primary keys?

✗ Wrong: Yes

SAFE ANSWER:

No. Table can have only one primary key, but it can be composite.

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Q12. What happens if foreign key constraint fails?

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✗ Wrong: Data inserted anyway

SAFE ANSWER:

Insert or update operation fails to maintain data integrity.

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### ◆ 5 JOIN TRICKS (DON'T GUESS OUTPUT)

Q13. Difference between INNER JOIN and LEFT JOIN?

✗ Wrong: Same

SAFE ANSWER:

INNER JOIN returns only matching rows.

LEFT JOIN returns all rows from left table and matching rows from right table.

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Q14. What happens if no matching record in RIGHT table (LEFT JOIN)?

✗ Wrong: Row removed

SAFE ANSWER:

Left table row appears with NULL values for right table columns.

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### ◆ 6 AGGREGATE FUNCTION TRAPS

Q15. Can we use aggregate function in WHERE?

✗ Wrong: Yes

SAFE ANSWER:

No. Aggregate functions are used with HAVING, not WHERE.

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Q16. What is COUNT(\*) vs COUNT(column)?

✗ Wrong: Both same

SAFE ANSWER:

COUNT(\*) counts all rows.

COUNT(column) ignores NULL values.

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### ◆ INDEX & PERFORMANCE TRAPS

Q17. Does index always improve performance?

✗ Wrong: Yes

SAFE ANSWER:

No. Index improves SELECT performance but can slow down INSERT, UPDATE, DELETE.

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Q18. Should we create index on every column?

✗ Wrong: Yes

SAFE ANSWER:

No. Index should be created only on frequently searched columns.

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### ◆ OUTPUT-BASED TRAPS (SAFE WAY TO ANSWER)

Q19. Query with GROUP BY gives unexpected result. Why?

✗ Wrong: SQL bug

SAFE ANSWER:

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Because non-aggregated columns must be included in GROUP BY.

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Q20. Query returns no rows though data exists. Why?

✗ Wrong: Data issue

SAFE ANSWER:

Possible reasons: wrong WHERE condition, NULL comparison, or join mismatch.

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◆ ♣GENERAL REALITY CHECK TRAPS

Q21. Is SQL case-sensitive?

✗ Wrong: Yes

SAFE ANSWER:

SQL keywords are not case-sensitive, but data comparison may depend on database collation.

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Q22. Can we store duplicate values in a table?

✗ Wrong: No

SAFE ANSWER:

Yes, unless restricted by primary key or unique constraint.

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● GOLDEN SAFE LINE (VERY IMPORTANT)

> "I am not guessing the output. Let me explain the logic of how SQL processes this query."

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