

<b>Started on</b>	Friday, 5 December 2025, 12:50 PM
<b>State</b>	Finished
<b>Completed on</b>	Friday, 5 December 2025, 12:55 PM
<b>Time taken</b>	4 mins 35 secs
<b>Marks</b>	23.00/25.00
<b>Grade</b>	<b>92.00</b> out of 100.00

**Question 1**

Complete

Mark 1.00 out of 1.00

A foreign key must always reference:

- a. The first column of the parent table
- b. Any attribute in any table
- c. A primary key or unique key in another table
- d. A candidate key in the same table

**Question 2**

Complete

Mark 1.00 out of 1.00

A relationship that requires a linking (junction) table is usually:

- a. Many-to-many
- b. Recursive
- c. One-to-many
- d. One-to-one

**Question 3**

Complete

Mark 1.00 out of 1.00

If a transaction commits, the ability of the database to preserve changes even after a crash refers to:

- a. Isolation
- b. Durability
- c. Consistency
- d. Serializability

**Question 4**

Complete

Mark 1.00 out of 1.00

In a one-to-many relationship, the foreign key is typically stored in:

- a. The "many" side
- b. Both sides
- c. A separate relationship table
- d. The "one" side

**Question 5**

Complete

Mark 1.00 out of 1.00

Violation of which ACID property leads to dirty reads?

- a. Consistency
- b. Durability
- c. Isolation
- d. Atomicity

**Question 6**

Complete

Mark 1.00 out of 1.00

What is the output of COUNT(\*) if a table has 5 rows containing NULL values?

- a. 5
- b. Only non-NULL rows counted
- c. 0
- d. NULL

**Question 7**

Complete

Mark 1.00 out of 1.00

What is the purpose of a unique key?

- a. To allow duplicate values only once
- b. To generate values automatically
- c. To enforce uniqueness but allow a single NULL
- d. To enforce referential integrity

**Question 8**

Complete

Mark 1.00 out of 1.00

Which ACID property ensures that a transaction's operations are treated as a single unit?

- a. Consistency
- b. Durability
- c. Atomicity
- d. Isolation

**Question 9**

Complete

Mark 1.00 out of 1.00

Which ACID property ensures that concurrently running transactions do not affect each other's intermediate states?

- a. Durability
- b. Isolation
- c. Atomicity
- d. Consistency

**Question 10**

Complete

Mark 1.00 out of 1.00

Which ACID property guarantees that a transaction moves the database from one valid state to another?

- a. Durability
- b. Consistency
- c. Isolation
- d. Atomicity

**Question 11**

Complete

Mark 1.00 out of 1.00

Which aggregate function counts only non-NULL values?

- a. AVG(column\_name)
- b. COUNT(column\_name)
- c. SUM(column\_name)
- d. COUNT(\*)

**Question 12**

Complete

Mark 1.00 out of 1.00

Which aggregate function ignores NULLs by default?

- a. SUM
- b. All of the above
- c. AVG
- d. MIN

**Question 13**

Complete

Mark 1.00 out of 1.00

Which key prevents insertion of a record that references a non-existent parent row?

- a. Check constraint
- b. Unique key
- c. Primary key
- d. Foreign key

**Question 14**

Complete

Mark 1.00 out of 1.00

Which key uniquely identifies a tuple in a table and cannot contain NULL values?

- a. Candidate key
- b. Foreign key
- c. Primary key
- d. Superkey

**Question 15**

Complete

Mark 1.00 out of 1.00

Which of the following best describes a composite key?

- a. A key consisting of multiple attributes
- b. A key ensuring referential integrity
- c. A key that cannot contain NULL values
- d. A key generated automatically by DBMS

**Question 16**

Complete

Mark 1.00 out of 1.00

Which of the following is a minimal superkey?

- a. Primary key
- b. Candidate key
- c. Composite key
- d. Foreign key

**Question 17**

Complete

Mark 0.00 out of 1.00

Which of the following is TRUE about candidate keys?

- a. All candidate keys must be chosen as primary keys
- b. Candidate keys can contain duplicate values
- c. A table can have multiple candidate keys
- d. Candidate keys depend on foreign key constraints

**Question 18**

Complete

Mark 1.00 out of 1.00

Which relationship allows an entity to be related to itself?

- a. Recursive relationship
- b. Many-to-many
- c. One-to-many
- d. One-to-one

**Question 19**

Complete

Mark 1.00 out of 1.00

Which SQL clause groups rows that have the same values into summary rows?

- a. DISTINCT
- b. GROUP BY
- c. ORDER BY
- d. HAVING

**Question 20**

Complete

Mark 1.00 out of 1.00

Which SQL clause is executed first in a SELECT query?

- a. GROUP BY
- b. FROM
- c. HAVING
- d. SELECT

**Question 21**

Complete

Mark 1.00 out of 1.00

Which SQL clause is used to filter aggregated results?

- a. WHERE
- b. GROUP BY
- c. HAVING
- d. FILTER

**Question 22**

Complete

Mark 0.00 out of 1.00

Which SQL query correctly finds departments having total salary > 1,00,000?

- a. SELECT dept, SUM(salary) FROM emp GROUP BY dept WHERE SUM(salary)>100000;
- b. SELECT dept, SUM(salary) FROM emp HAVING SUM(salary)>100000 GROUP BY dept;
- c. SELECT dept, SUM(salary) FROM emp GROUP BY dept HAVING SUM(salary)>100000;
- d. SELECT dept, SUM(salary) FROM emp WHERE SUM(salary)>100000 GROUP BY dept;

**Question 23**

Complete

Mark 1.00 out of 1.00

Which SQL query finds the number of employees per department?

- a. SELECT dept, COUNT(\*) FROM emp HAVING dept GROUP BY dept;
- b. SELECT dept, COUNT(\*) FROM emp GROUP BY dept;
- c. SELECT dept, COUNT(\*) GROUP BY dept FROM emp;
- d. SELECT COUNT(\*), dept FROM emp WHERE COUNT(\*) GROUP BY dept;

**Question 24**

Complete

Mark 1.00 out of 1.00

Which SQL statement is valid for filtering rows before aggregation?

- a. WHERE salary > 50000
- b. GROUP BY salary > 50000
- c. HAVING salary > 50000
- d. WHERE AVG(salary) > 50000

**Question 25**

Complete

Mark 1.00 out of 1.00

Which clause is used to filter rows after aggregation?

- a. HAVING
- b. GROUP BY
- c. WHERE
- d. DISTINCT