

Topic: Database Fundamentals

Question: What is a primary key in a relational database?

Option A: A key that unlocks the database

Option B: A unique identifier for each record in a table

Option C: The first column in any table

Option D: A key used for encryption

Correct Answer: B

Score: 12

Difficulty: Easy

Grading Criteria: Student must identify that primary key is a unique identifier

Hint: Think about what makes each row unique

Topic: Database Normalization

Question: Which normal form eliminates transitive dependencies?

Option A: Normal Form first(1NF)

Option B: Second Normal Form (2NF)

Option C: Third Normal Form (3NF)

Option D: Fourth Normal Form (4NF)

Correct Answer: B

Score: 20

Difficulty: Medium

Grading Criteria: Student must understand 3NF removes transitive dependencies

Hint: This is the third level of normalization

Topic: SQL Queries

Question: Which SQL clause is used to filter grouped results?

Option A: WHERE

Option B: HAVING

Option C: FILTER

Option D: GROUP BY

Correct Answer: B

Score: 10

Difficulty: Medium

Grading Criteria: Student must differentiate between WHERE and HAVING clauses

Hint: One filters rows before grouping, one filters after grouping