WEEK 3. SQL Queries – Chapter 4

Self-Check Questions

1. Which relational operation may be represented using a SELECT statement using the SELECT and FROM clauses:
   a. Selection
   b. Projection
   c. Grouped aggregation
   d. Ordering of rows based on a column

2. Which relational operation may NOT be represented using a SELECT statement with only the SELECT and FROM clauses:
   a. Selection
   b. Projection
   c. Natural join
   d. Cross product

3. Which clause of the SELECT statement is never needed to represent a Natural join query:
   a. SELECT
   b. FROM
   c. WHERE
   d. GROUP BY

4. Which of the following apply to the GROUP clause:
   a. The GROUP BY clause must contain every column in the SELECT clause, as well as every aggregate expression in the SELECT clause, or the query will not be valid.
   b. The SELECT clause must contain every column in the GROUP BY clause
   c. The GROUP BY clause must contain all columns in the SELECT clause
   d. The GROUP BY clause may not include columns in the SELECT clause

5. Which of the following statements is true about SQL tables?
   a. Some SQL tables are not relational because they may be ordered by the primary key columns
   b. Some SQL tables are not relational they may contain two columns with the same name.
   c. Some SQL tables are not relational since they may contain duplicate rows.
   d. All SQL tables have primary keys and are relational.

Discussion Questions

6. What mental steps in the query formulation process are addressed by the conceptual evaluation process and critical questions?