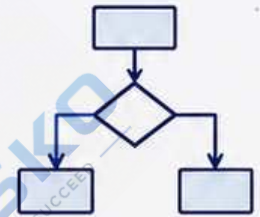


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Question Bank

QUESTION BANK

- Unit-wise Questions
- Short Answer Questions
- Long Answer Questions
- Practice More, Score Better
- Important for Exams

Practice • Understand • Succeed



Relational Database Management System

Unit I - Introduction to Database, DBMS Architecture and SQL

● Answers in one or two lines (1 mark questions)

1. Define data.
2. Define information.
3. What is a database?
4. Define DBMS.
5. What is the need for a database?
6. What is the Relational Model?
7. Expand DBMS.
8. Expand SQL.
9. Who is a Database Administrator (DBA)?
10. Name any two responsibilities of a DBA.
11. What is the architecture of DBMS?
12. What is SQL?
13. Name the components of SQL.
14. Expand DDL.
15. Expand DML.
16. Expand DCL.
17. Expand TCL.
18. What is the purpose of the SELECT statement?
19. What is the WHERE clause?
20. What is the ORDER BY clause?
21. What is the GROUP BY clause?
22. What is the HAVING clause?
23. Name any four SQL data types.
24. What is an SQL operator?
25. Name any two comparison operators in SQL.

● Short Answer Questions (3 marks questions)

1. Differentiate between data and information.
2. Explain the characteristics of a database.
3. Explain the need for a DBMS.
4. Explain the Relational Model.
5. Explain the architecture of DBMS.
6. Explain the role and responsibilities of a DBA.
7. Explain SQL and its features.
8. Explain the advantages of SQL.

9. Explain SQL data types with examples.
10. Explain SQL operators with examples.
11. Differentiate between DDL and DML.
12. Differentiate between DCL and TCL.
13. Explain the components of SQL.
14. Explain the SELECT statement with syntax.
15. Explain the WHERE, ORDER BY, GROUP BY, and HAVING clauses with examples.

● **Long Answer Questions (6 marks questions)**

1. Explain the concepts of Data, Information, Database, and DBMS with suitable examples.
2. Explain the characteristics and needs of a database in detail.
3. Explain the Relational Model and Architecture of DBMS with neat diagrams.
4. Explain the role, functions, and responsibilities of a Database Administrator (DBA).
5. Explain SQL, its features, characteristics, and advantages in detail.
6. Explain SQL data types and operators with suitable examples.
7. Explain the components of SQL (DDL, DML, DCL, and TCL) with suitable commands.
8. Explain the SELECT statement and its clauses (WHERE, ORDER BY, GROUP BY, and HAVING) with suitable examples.
9. Differentiate between DDL, DML, DCL, and TCL commands with examples.
10. Write SQL queries using SELECT, WHERE, ORDER BY, GROUP BY, and HAVING clauses.

Unit II - Constraints, Views, Indexes, Joins, Union and In-Built Functions

● Answers in one or two lines (1 mark questions)

1. What is a constraint in SQL?
2. Define Primary Key.
3. Define Foreign Key.
4. What is a Unique Constraint?
5. What is a NOT NULL Constraint?
6. What is a CHECK Constraint?
7. What is a DEFAULT Constraint?
8. What is a View?
9. What is a Snapshot?
10. What is an Index?
11. What is a Join?
12. What is a Union?
13. What is an Alias?
14. What is a NULL value?
15. What is the NVL() function?
16. What is a Subquery?
17. Name any two types of joins.
18. What is an Inner Join?
19. What is an Outer Join?
20. Name any two character functions in SQL.
21. Name any two number functions.
22. Name any two date functions.
23. What is a Group Function?
24. Name any one conversion function.
25. What is the purpose of an Index?

● Short Answer Questions (3 marks questions)

1. Explain different types of SQL constraints.
2. Explain the Primary Key and Foreign Key constraints.
3. Explain the NOT NULL, UNIQUE, and CHECK constraints.
4. Explain operations on a table using constraints.
5. Explain the need and advantages of Views.
6. Explain different types of Views.
7. Explain the need and advantages of Indexes.
8. Explain different types of Joins with examples.
9. Differentiate between Join and Union.
10. Explain Character Functions with examples.
11. Explain Number Functions with examples.

12. Explain Date Functions with examples.
13. Explain Group Functions with examples.
14. Explain the use of Alias, NULL, and NVL().
15. Explain Subqueries with suitable examples.

● **Long Answer Questions (6 marks questions)**

1. Explain SQL Constraints and their types with suitable examples.
2. Explain table creation and constraint implementation with SQL commands.
3. Explain Views, their needs, advantages, and types with suitable examples.
4. Explain Indexes, their needs, types, and advantages with suitable examples.
5. Explain different types of Joins with suitable SQL queries and examples.
6. Differentiate between Join and Union with examples.
7. Explain Character, Number, Date, Group, and Conversion Functions with examples.
8. Explain the use of Alias, NULL, NVL(), and Subqueries with suitable SQL queries.
9. Write SQL queries using Constraints, Views, Indexes, and Joins.
10. Explain all major SQL functions with suitable examples.

Unit III - PL/SQL and Cursors

- **Answers in one or two lines (1 mark questions)**

1. Define PL/SQL.
2. Expand PL/SQL.
3. What is a PL/SQL block?
4. What are the sections of a PL/SQL block?
5. What is the DECLARE section?
6. What is the BEGIN section?
7. What is the EXCEPTION section?
8. What is the END section?
9. What is an exception in PL/SQL?
10. What is exception handling?
11. Define a cursor.
12. What is an implicit cursor?
13. What is an explicit cursor?
14. Name any two cursor attributes.
15. What is %FOUND?
16. What is %NOTFOUND?
17. What is %ROWCOUNT?
18. What is %ISOPEN?
19. What is the purpose of a cursor?
20. What is the life cycle of a cursor?

- **Short Answer Questions (3 marks questions)**

1. Explain PL/SQL with its features.
2. Explain the architecture of a PL/SQL block.
3. Explain different sections of a PL/SQL block.
4. Explain PL/SQL data types.
5. Explain exception handling in PL/SQL.
6. Explain predefined and user-defined exceptions.
7. Explain the concept of a cursor.
8. Differentiate between implicit and explicit cursors.
9. Explain cursor attributes with examples.
10. Explain the life cycle of a cursor.
11. Explain OPEN, FETCH, and CLOSE operations of a cursor.
12. Explain the advantages of PL/SQL.
13. Explain the need for cursors.
14. Explain the applications of PL/SQL.

- **Long Answer Questions (6 marks questions)**

1. Explain PL/SQL with its features, advantages, and applications.
2. Explain the structure of a PL/SQL block with a suitable example.
3. Explain PL/SQL data types and block structure in detail.
4. Explain exception handling in PL/SQL with suitable examples.
5. Explain cursors, their types, and applications in detail.
6. Differentiate between implicit and explicit cursors with examples.
7. Explain cursor attributes (%FOUND, %NOTFOUND, %ROWCOUNT, %ISOPEN) with suitable examples.
8. Explain the life cycle of a cursor with a neat diagram.
9. Write a PL/SQL program using exception handling and cursors.
10. Explain cursor operations (OPEN, FETCH, CLOSE) with suitable examples.

Unit IV - Procedures, Functions, Triggers, Backup and Recovery, Transaction Control

● Answers in one or two lines (1 mark questions)

1. Define a Procedure.
2. Define a Function in DBMS.
3. Define a Trigger.
4. What is a Database Backup?
5. What is Database Recovery?
6. What is an Archive?
7. What is a Transaction Log?
8. Define Transaction Control.
9. Expand TCL.
10. Name any two TCL commands.
11. What is the COMMIT command?
12. What is the ROLLBACK command?
13. What is the SAVEPOINT command?
14. What is an AFTER Trigger?
15. What is a BEFORE Trigger?
16. What is a Row-Level Trigger?
17. What is a Statement-Level Trigger?
18. What is the purpose of a stored procedure?
19. What is the purpose of a database function?
20. Why is database backup important?

● Short Answer Questions (3 marks questions)

1. Explain Procedures in DBMS.
2. Explain Functions in DBMS.
3. Explain Triggers and their importance.
4. Explain different types of Triggers.
5. Explain the advantages and disadvantages of Procedures.
6. Explain the advantages and disadvantages of Functions.
7. Explain the advantages and disadvantages of Triggers.
8. Explain Database Backup.
9. Explain Database Recovery.
10. Explain Archive (Transaction Logs).
11. Explain the importance of Database Backup.
12. Explain Transaction Control Language (TCL).
13. Explain COMMIT, ROLLBACK, and SAVEPOINT commands.
14. Differentiate between Procedures and Functions.
15. Explain the applications of Procedures, Functions, and Triggers.

- **Long Answer Questions (6 marks questions)**

1. Explain Procedures, their types, advantages, and disadvantages with suitable examples.
2. Explain Functions in DBMS with suitable examples and applications.
3. Explain Triggers, their types, advantages, and disadvantages with examples.
4. Differentiate between Procedures, Functions, and Triggers with a comparison table.
5. Explain Database Backup and Recovery in detail.
6. Explain Archive (Transaction Logs) and their role in Database Recovery.
7. Explain Transaction Control Language (TCL) commands (COMMIT, ROLLBACK, and SAVEPOINT) with suitable examples.
8. Explain the importance of Database Backup and Recovery in database management.
9. Write SQL examples to create a Procedure, Function, and Trigger.
10. Explain the complete transaction control process in DBMS with suitable examples.

