

- Q.27 Explain any 2 aggregate functions of SQL
- Q.28 What is the purpose of the ALTER TABLE statement in SQL?
- Q.29 Explain the purpose of the WHERE clause in a SELECT statement.
- Q.30 When would you use a sub-query in SQL?
- Q.31 Which statement in SQL Server is used for iterative processing?
- Q.32 Describe user-defined functions and their role in SQL Server.
- Q.33 What is a trigger in the context of databases, and why are they used?
- Q.34 Discuss advantages of using triggers in a database system.
- Q.35 Explain the concept of database security and why it is important.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Briefly explain the concepts of First, Second, and Third Normal Forms (1NF, 2NF, 3NF)
- Q.37 What are indexes and what is their primary purpose in a database?
- Q.38 Write short notes on:
- Sub queries
 - Aggregate functions of SQL

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Roll No.

5th Sem./Comp Subject:- Relational Database Management System (RDBMS)

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Which of the following is NOT a component of the relational model?
- Domain
 - Tuple
 - Matrix
 - Attribute
- Q.2 What is a foreign key in the relational model?
- A key that uniquely identifies a tuple in a relation
 - A key that is used to establish relationships between tables
 - A key that is allowed to contain null values
 - A key that is used to enforce domain constraints
- Q.3 What is the primary goal of normalization in database design?
- To reduce redundancy and dependency
 - To increase data integrity
 - To improve data consistency
 - All of the above
- Q.4 Which of the following is NOT a basic operation in relational algebra?
- UNION
 - INSERT
 - JOIN
 - INTERSECTION

- Q.5 What is the purpose of the Data Definition Language (DDL) in SQL?
- To query and retrieve data from the database
 - To define and modify database structure
 - To perform calculations and aggregate functions
 - None of the above
- Q.6 Which SQL command is used to create a new table?
- INSERT
 - UPDATE
 - CREATE
 - ALTER
- Q.7 Which statement is used to add new data into a database table?
- INSERT
 - UPDATE
 - DELETE
 - SELECT
- Q.8 Which statement is used to retrieve data from a database table?
- INSERT
 - UPDATE
 - DELETE
 - SELECT
- Q.9 Which statement is used for error handling?
- TRY
 - CATCH
 - EXCEPTION
 - ERROR
- Q.10 Which SQL statement is used to grant specific permission to a user or role in a database?
- ALLOW
 - AUTHORIZE
 - GRANT
 - PERMIT

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Expand rdbms.
- Q.12 Relational databases use tables to represent entities and relationships between them.(True/False)

- Q.13 Second normal form (2NF) eliminates partial dependencies.(True/False)
- Q.14 The full form of BCNF is_____.
- Q.15 Which command of SQL is used to change the structure of a table?
- Q.16 Which command is used to add new data into a database table?
- Q.17 How does the UPDATE statement differ from the INSERT Statement?
- Q.18 Indexes in a database are primarily used to improve data security.(True/False)
- Q.19 The GRANT statement in SQL is used to assign specific permissions to a user or Role .(True/False)
- Q.20 The _____statement is used to create triggers in a database .(Make trigger/create trigger)

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 What is the importance of domains in the relational model?
- Q.22 Differentiate between referential integrity and entity integrity?
- Q.23 What is the concept of normalization in database design?
- Q.24 What is a functional dependency in the context of database management?
- Q.25 Explain the purpose of GRANT command.
- Q.26 What is the purpose of SELECT operation in relational algebra?