

- 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:
 a) Sub queries
 b) Aggregate functions of SQL

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

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

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- 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?

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