

Course Name : BSCCS

Date : 16-02-2026

Subject Name : Database Management System and Security

Time : 03:00PM TO 05:15PM

Subject Code : BSCCS-201

Max Marks : 70

Section A

Q.-1. Answer the following (Attempt any three) (30)

- (1) Explain different types of database systems based on users and locations with suitable examples.
- (2) Explain First Normal Form (1NF) with suitable examples.
- (3) Discuss the advantages and disadvantages of normalization in database systems.
- (4) Describe different categories of SQL commands with suitable examples.
- (5) Explain SELECT statement in SQL and describe the use of WHERE clause.

Section B

Q.-2. Write short notes on any four of the following topics. (20)

- (1) Explain data sharing and data integration in DBMS with suitable examples.
- (2) Explain database users and administrators and discuss their roles and responsibilities.
- (3) Describe different types of keys used in relational databases and explain their significance.
- (4) Explain Data Definition Language (DDL) commands with examples.
- (5) Explain the importance of backup strategies in database systems.
- (6) Explain disaster recovery planning in database management systems.

Section C

Q.-3. Choose the correct answer from the options given below. (10)

(1) DBMS stands for

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|-------------------------------|-------------------------------|
| A) A data model | B) Database Machine System |
| C) Database Management System | D) Data Manipulation Software |

(2) Which feature ensures multiple users access data simultaneously?

- | | |
|------------------|------------------------|
| A) Normalization | B) Concurrency control |
| C) Encryption | D) Indexing |

(3) Data modeling is the first step of which process?

- | | |
|-------------------|--------------------|
| A) Programming | B) Database design |
| C) System testing | D) Networking |

(4) Which model represents user views?

- | | |
|---------------|-------------|
| A) Conceptual | B) Internal |
| C) External | D) Physical |

(5) Which data independence hides storage details?

- | | |
|------------|-------------|
| A) Logical | B) Physical |
| C) View | D) Schema |

(6) Entity Relationship Model is an example of

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|-------------------|---------------------|
| A) Physical model | B) Conceptual model |
| C) Logical model | D) Internal model |

(7) A row in a table is also called

- | | |
|--------------|-----------|
| A) Attribute | B) Field |
| C) Tuple | D) Domain |

(8) Functional dependency is used in

- | | |
|-------------|------------------|
| A) SQL | B) Normalization |
| C) Security | D) Indexing |

(9) Which SQL command retrieves data?

- | | |
|-----------|-----------|
| A) INSERT | B) UPDATE |
| C) SELECT | D) DELETE |

(10) Which join returns matching rows only?

- | | |
|---------------|---------------|
| A) LEFT JOIN | B) RIGHT JOIN |
| C) INNER JOIN | D) FULL JOIN |

Section D

Q.-4. Indicate whether the following statements are True or False.

(10)

- (1) DBMS helps users to store and retrieve data efficiently.
- (2) A file-based system reduces data redundancy.
- (3) External model represents the user's view of data.
- (4) A relation is also known as a table.
- (5) A tuple represents a row in a table.
- (6) Primary key uniquely identifies each record in a table.
- (7) SELECT command is used to insert data into a table.
- (8) JOIN clause combines rows from two or more tables.
- (9) Database security ensures confidentiality, integrity, and availability.
- (10) Backup and recovery help protect databases from data loss.
