

B.C.A Semester - 4 (NEP-2020) Examination**March/April-2026****DBMS -2 (Major-10)****Time: 2:00 Hours****Marks:50****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Que.1 Answer the Followings (Any Two) (10)
- 1) Explain how to create, update, and delete a View with examples.
 - 2) Describe the steps to create, alter, and drop a Sequence with examples.
 - 3) Differentiate between Public and Private Synonyms.
 - 4) Explain types of Indexes: Primary, Secondary, and Clustered Index.
- Que.2 Answer the Followings (Any Two) (10)
- 1) Explain PL/SQL datatypes, operators, and expressions with suitable examples.
 - 2) Define Stored Procedure. Explain the process of creating, updating, deleting, and executing a procedure with examples.
 - 3) Define Stored Function. Explain how to create, modify, delete, and execute a function with examples.
 - 4) Explain the process of creating, updating, deleting, and executing triggers with examples.
- Que.3 Answer the Followings (Any Two) (10)
- 1) Explain different types of locks: Shared Lock, Exclusive Lock, DML Lock, DDL Lock, and Latch.
 - 2) Describe methods of deadlock avoidance, detection, and prevention.
 - 3) Explain important database files: Data File, Redo Log File, Control File, and Archive File.
 - 4) Compare full, incremental, and differential backup strategies.
- Que.4 Answer the Followings (Any Two) (10)
- 1) Explain different database security threats and vulnerabilities with examples.
 - 2) Explain the concept of user authentication in database systems.
 - 3) Explain encryption and decryption in database security.
 - 4) Describe auditing techniques: SQL Profiling and Monitoring, Transaction Logging, and Third-party Solutions.
- Que.5 Answer the Followings (Any Two) (10)
- 1) Explain types of Snapshots.
 - 2) Explain the concept and types of exceptions in PL/SQL.
 - 3) Explain recovery techniques: Rollback, Forward Recovery, and Point-in-Time Recovery.
 - 4) Explain the concept and purpose of database monitoring.
