

Dr. Babasaheb Ambedkar Open University
Term End Examination July – 2026

Course	: BSCIT	Date	: 16/07/2026
Subject Code	: BSCIT-301	Time	: 03:00pm to 05:15pm
Subject Name	: Relational Database Management System	Duration	: 02.15 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three) (30)

1. Discuss advantages and disadvantages of DBMS.
2. Explain DBMS Architecture in detail.
3. Explain various Data Models. Compare Hierarchical, Network and Relational Data Models.
4. Define Sub-Queries. Explain different types of Join in detail.
5. Explain PL/SQL. Discuss its structure, features and advantages with suitable examples.

Section B

Answer the following (Attempt any four) (20)

1. Differentiate between Database System and Traditional File System.
2. Explain Components of DBMS.
3. Explain Entity Relationship (ER) Model and its components.
4. Explain the concept of Normalization in brief.
5. Explain Oracle Database Objects and their uses.
6. Explain Exception Handling in PL/SQL.

Section C

Part – A (Multiple Choice Questions) (10)

1. Which key is used to establish a relationship between two tables?
A) Primary Key B) Foreign Key
C) Candidate Key D) Alternate Key
2. Which architecture is most commonly used in DBMS?
A) Single Tier B) Two Tier
C) Three Tier D) Four Tier
3. Which data model organizes data in a tree-like structure?
A) Relational Model B) Network Model
C) Hierarchical Model D) ER Model
4. Which key uniquely identifies a record in a table?
A) Foreign Key B) Primary Key
C) Composite Key D) Alternate Key
5. Functional Dependency is mainly used in:
A) Networking B) Normalization
C) Operating System D) Compiler Design
6. Which normal form removes partial dependency?
A) 1NF B) 2NF
C) 3NF D) BCNF

7. PL/SQL is primarily associated with:

- A) MySQL
- B) SQL Server
- C) Oracle
- D) PostgreSQL

8. Which database object is automatically executed when a specified event occurs?

- A) Cursor
- B) Trigger
- C) View
- D) Sequence

9. Which PL/SQL structure is used to handle runtime errors?

- A) Cursor
- B) Package
- C) Exception
- D) Trigger

10. Which command is used to remove a table permanently?

- A) DELETE
- B) REMOVE
- C) DROP
- D) ERASE

Part – B (State whether the following statements are true or false)

(10)

- 1 A database is a collection of related data.
- 2 DBMS reduces data redundancy.
- 3 Three-tier architecture contains Presentation, Application and Database layers.
- 4 A Network Model supports many-to-many relationships.
- 5 Primary Key values can be NULL.
- 6 Functional Dependency is used in database normalization.
- 7 PL/SQL supports procedural programming features.
- 8 A Trigger is executed automatically when a specified event occurs.
- 9 Cursors are used to process query results row by row.
- 10 Exception Handling improves program reliability.
