

INDIRA UNIVERSITY, PUNE

SCHOOL OF INFORMATION TECHNOLOGY- BCA

Term End Examination (2025 Pattern) April- May – 2026- Semester – II

Course Name: Database Management System
Course Code: 25BCA202T

Max. Marks: 25
Time: 1 Hr. 30 Minutes

Instructions

- Instructions 1: All questions are compulsory.
- Instructions 2: Draw neat diagram wherever necessary.

Q1.	Attempt any 5 out of 7. (1 Mark each) - a) Describe the concept of Database b) Explain the concept of aggregation. c) Explain the NOT NULL constraint. d) Describe an entity in the ER model. e) Explain the concept of a composite key. f) Show the symbol used to represent a relationship in an ER diagram. g) Expand SQL to its full form.	(5 Marks)	CO2
Q2.	Attempt any 2 out of 4. (5 marks each) – a) Draw an ER diagram for a Banking System based on the following description A customer can have multiple accounts, and each account is maintained at one branch, while a branch can manage many accounts. Identify all entities, their attributes, relationships, primary keys, and specify the cardinality in your ER diagram. b) Construct the following table: Product(ProductID, ProductName, Category, Price, Quantity) Solve SQL Queries for: i. Insert 5 records. ii. Find the maximum price. iii. List products whose name ends with 'r'. iv. Update price of 'Mouse' to 450. "	(10 Marks)	CO3

	c) Develop the following Entities and Relationships using tables Employee (emp_no, name, skill, payrate) Position (posting_no, skill) Relation between Employee and Position is Many to Many with day and shift as descriptive attribute. d) Make use of normalization principles to develop a table structure that satisfies 1NF and illustrate with a suitable example.	
Q.3	Attempt all questions- a) Discuss the concept of DML commands with examples. (5 Marks) b) Discuss Group By clause with example (5 Marks)	CO6
Q.3	OR Attempt all questions - a) Elaborate the role of Aggregate Functions in SQL. Explain with suitable examples using an employee table. (10 Marks)	CO6
