

**FOURTH SEMESTER UG DEGREE EXAMINATION, APRIL 2025**

**(Regular/Improvement/Supplementary)**

**BCA**

**GBCA4B05T: DATABASE MANAGEMENT SYSTEM & RDBMS**

**Time: 2 Hours**

**Maximum Marks: 60**

**SECTION A: Answer the following questions. Each carries *two* marks  
(Ceiling 20)**

1. What are the aggregate functions in SQL?
2. State the role of DBA.
3. Explain ACID property.
4. Define multivalued dependency.
5. Discuss referential integrity with example.
6. What is the importance of language processor in DBMS?
7. What do you mean by data independence?
8. List out the different types of attributes with example.
9. Explain projection operation of relational algebra.
10. Create a student table where student id as primary key, student name should be unique. Address, marks of three subjects as other attribute.
11. List out different type of database users.
12. Define the term mapping cardinality.

**SECTION B: Answer the following questions. Each carries *five* marks  
(Ceiling 30)**

13. Discuss the advantages of DBMS over file systems.
14. Compare strong entity and weak entity with suitable examples.
15. Explain ER model & its significance with the help of neat sketch.
16. How triggers are implemented in database?
17. What do you mean by join? Discuss different join operations.
18. Compare fourth and fifth normal forms.
19. Write a short note about select, insert, delete, update and count command of SQL with suitable example.

**SECTION C: Answer any *one* question. The question carries *ten* marks.**

20. Explain the importance of normalization. Also explain 1NF, 2NF, 3NF and BCNF with suitable example.
21. Describe different types of cursors and explain the working with cursor.

**(1 × 10 = 10 Marks)**