

**FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION  
APRIL 2021**

B.C.A.

BCA 4B 05—DATABASE MANAGEMENT SYSTEM AND RDBMS

Time : Two Hours

Maximum : 60 Marks

**Section A (Short Answer Type Questions)**

*Answer at least **eight** questions.*

*Each question carries 3 marks.*

*All questions can be attended.*

*Overall Ceiling 24.*

1. What is a Primary Key and data abstraction ?
2. What is an entity relationship model ?
3. List and explain the types of keys.
4. Explain outer joins with example.
5. What is domain calculus in DBMS ?
6. What is database languages and interfaces ?
7. Discuss the use of rename operation.
8. List and define ACID properties.
9. What is bound and Unbound Cursors ?
10. Define Atomicity.
11. What is difference between subquery and correlated subquery ?
12. Write a shot note on Exist and Any.

(8 × 3 = 24 marks)

**Turn over**

**Section B (Short Essay Type Questions)**

*Answer at least five questions.  
Each question carries 5 marks.  
All questions can be attended.  
Overall Ceiling 25.*

13. What is database Management System ? Discuss in detail the advantages and disadvantages of using a database system ?
14. What are the variations in relational calculus ? Explain with examples.
15. Illustrate functional dependency and transitive dependency with example.
16. Write about relational algebra ? Discuss about different operators used in algebra.
17. What are aggregate functions ? and list and explain the aggregate functions supported by SQL
18. How can we destroy a view ? Explain the use of order by.
19. Discuss about the Conceptual Design with the ER-Model with example.

(5 × 5 = 25 marks)

**Section C (Essay Type Questions)**

*Answer any one question.  
The question carries 11 marks.*

20. a) Define BCNF. How does BCNF differ from 3NF ? Explain with example.  
b) Explain 3NF. Give one example.
21. a) List the table modification commands in sql. Explain with examples.  
b) What is the difference between DBMS and RDBMS ?

(1 × 11 = 11 marks)