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# 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.

 $(8 \times 3 = 24 \text{ marks})$ 

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.

 $(5 \times 5 = 25 \text{ marks})$ 

### 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?

 $(1 \times 11 = 11 \text{ marks})$