

C 21253

(Pages : 3)

Name.....

Reg. No.....

**FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION, APRIL 2022**

B.C.A.

BCA4B05—DATABASE MANAGEMENT SYSTEM AND RDBMS

(2017—2018 Admissions)

Time : Three Hours

Maximum : 80 Marks

**Part A***Write short answer on all questions.**Each question carries 1 mark.*

1. What do you mean by single valued attribute ? Give an example.
2. Give the expansions for DDL and DML.
3. What is the use of GROUP BY and HAVING clause in SQL ?
4. Define entity in DBMS.
5. Define the term database integrity .
6. What is the purpose of the keyword DESC in an SQL statement ?
7. Give an example for INSERT statement in SQL.
8. What is the use of NOT NULL ?
9. What do you mean by partial participation ?
10. What is a candidate key ?

(10 × 1 = 10 marks)

**Part B***Write a paragraph on all questions.**Each question carries 2 marks.*

11. Differentiate attribute and metadata.
12. What do you mean by referential integrity ?
13. Explain deletion anomaly with an example.

**Turn over**

14. Give an SQL query to illustrate the usage of : a) BETWEEN ; and b) LIKE.
15. What is the purpose of FETCH in a cursor ?
16. What happens when EXIT is used inside a loop in PL/SQL ?
17. Differentiate the DELETE and DROP commands in SQL.
18. What do you mean by row-level locking ?

(8 × 2 = 16 marks)

### Part C

*Write short essay on any **six** questions.  
Each question carries 4 marks.*

19. Explain functional dependency with an example.
20. Explain projection operation in relational algebra.
21. Explain set difference in SQL with an example.
22. What is a weak entity ? Explain with an example.
23. Explain specialization in ER model.
24. Explain binary locks in concurrency control.
25. Explain the three-schema architecture with a diagram.
26. Explain implicit cursor with an example.
27. Consider a table named emp\_table. Write a procedure to update the salary of employee with 1000.

(6 × 4 = 24 marks)

### Part D

*Write essays on any **three** questions.  
Each question carries 10 marks.*

28. Explain the first, second and third normal forms in detail with examples.
29. Discuss different types of JOIN operations in SQL.
30. Explain in detail, the components of DBMS.
31. Explain with example, loseless decomposition in DBMS.

32. Create DEPT table with the following structure (DEPTNO, DNAME, LOC) and EMP table with the following fields (EMPNO, ENAME, JOB, DEPTNO, SAL) Allow NULL for all columns except ENAME and JOB :

- a) Update the emp table to set the salary of all employees to Rs. 15000/ who are working as Manager.
- b) Delete only those who are working as Clerk.
- c) List the records in the emp table order by salary in descending order.
- d) Display deptno from the table employee avoiding the duplicated values.
- e) List the empno, empname, deptnames in which all employees are working.

(3 × 10 = 30 marks)