19U423S   (Pages: 2)   Name: ……..……………..

Reg. No……..……………

FOURTH SEMESTER B.C.A. DEGREE EXAMINATION, APRIL 2021
(CUCBCSS-UG)
CC17U BCA4 B05 - DATA BASE MANAGEMENT SYSTEM AND RDBMS
(Core Course)
(2017, 2018 Admission – Supplementary/Improvement)

Time: Three Hours   Maximum: 80 Marks

Section A
Answer *all* questions. Each question carries 1 mark.

1. Define schema and instance.

2. What is the difference between strong and weak entity?

3. What is a foreign key?

4. What is DBMS?

5. What do you mean by a domain?

6. Which is multivalued dependency?

7. What is DML?

8. What are locks?

9. What is the function of GRANT and REVOKE functions?

10. What do you mean by referential integrity?

(10 × 1 = 10 Marks)

Section B
Answer all questions. Each question carries 2 marks.

11. What is a view? Write the syntax for creating a view.

12. Briefly explain the states of a transaction.

13. What do you mean by data independence? Explain the different types.

14. Define the terms entity set and relationship set.

15. Briefly explain the data types used in SQL.

16. Write any four advantages of DBMS.

17. Explain the functions of DBA.

18. What is the difference between primary key and candidate key?

(8 × 2 = 16 Marks)

Section C
Answer any *six* questions. Each question carries 4 marks.

19. Explain the DDL commands with syntax.

20. Compare DBMS and file system.

21. Explain the symbols used in ER diagram with an example.

22. Explain the use of GROUP BY and ORDER BY clauses.

23. Explain SQL joins and different types of joins.

24. Explain domain relational calculus.

25. Explain the different types of loops in PL/SQL.

26. Explain Two phase locking protocol.

27. Explain the aggregate functions in SQL.

(6 × 4 = 24 Marks)

Section D
Answer any *three* questions. Each question carries 10 marks.

28. Write notes on:

    a) ACID properties of a transaction   (6 Marks)

    b) Triggers   (4 Marks)

29. What is Normalization? Discuss 1NF, 2NF, 3NF and BCNF.

30. What is a cursor? Discuss the different types of cursors and operations.

31. Explain in detail the relational algebra operations with examples.

32. Explain the following:

    a) Three schema architecture of DBMS   (5 Marks)

    b) Different types of data models   (5 Marks)

(3 × 10 = 30 Marks)

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