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Reg. No.....

Name.....

B.C.A./B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, NOVEMBER 2022

Fourth Semester

Core Course—DATABASE MANAGEMENT SYSTEM

(Common for B.C.A. and B.Sc. Computer Application [Triple Main])

[2013—2016 Admissions]

Time : Three Hours Maximum Marks : 80

Part A

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

1. What is DBMS ?
2. What is a data model ?
3. What is DDL ?
4. What is a foreign key ? Can there be more than one in a table ?
5. What is data independence ?
6. What is a primary index ?
7. What is a weak entity ?
8. What is a View ?
9. What is OLAP ?
10. What are Privileges ?

(10 × 1 = 10)

Part B

Answer any **eight** *questions.*
Each question carries 2 *marks.*

11. What are the roles and responsibilities of a DBA ?
12. What are Schemas ?
13. What is a Superclass ?
14. What are various entity types ?

Turn over

15. What is a primary key ? Can there be more than one in a table ?
16. What are the different types of DML ?
17. What is functional dependency ?
18. What are referential integrity constraints ?
19. What is the use of the PROJECT operation ?
20. What is the use of the ALTER command ?
21. What is the use of the EXCEPT command ?
22. What is a Transaction ?

(8 × 2 = 16)

Part C

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

23. Describe the various component modules of DBMS.
24. Explain SELECT operation with various options and examples.
25. Explain INNER JOIN operation with various options and examples.
26. Explain UPDATE command with various options and examples.
27. Explain DROP command with various options and examples.
28. Explain LIKE operator with various options and examples.
29. Explain BCNF.
30. Explain nested queries with an example.
31. Explain concurrency control in detail.

(6 × 4 = 24)

Part D

Answer any **two** *questions.*
Each question carries 15 *marks.*

32. Using E-R modeling, architect a library management system with various diagrams and tables including dependencies and relationships.
33. Explain third normal form in detail with examples.
34. Explain desirable properties of transactions in detail.
35. Explain database security in detail with various types, control measures, access control and protection.

(2 × 15 = 30)