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Reg. No. : .....

Name : .....

Third Semester B.Sc./B.C.A Degree Examination, October 2019

Career Related FDP under CBCSS

Group 2 (b) — Computer Science / Computer Applications

Core Course

CS 1345 / CP 1343 — DATABASE MANAGEMENT SYSTEMS

(2018 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A (Very Short Answer Type)

(One word to maximum of 1 sentence, Answer all questions)

1. Define DBMS.
2. What is known as degree of the table?
3. What are alternate keys?
4. Define ER model.
5. What are attributes?
6. What does physical security mean?
7. What does DML stand for?

8. What is the basic syntax for INSERT statement?

9. Define relational calculus.

10. Expand BCNF.

SECTION – B (Short answer)

[Not to exceed 1 paragraph, answer any **eight** questions. Each question 2 marks]

11. What do you meant by domain of an attribute?

12. Describe primary key of a relation.

13. Write any four standard ORACLE data types.

14. Describe many-to-one relationship in ER diagram.

15. List out the security issues regarding maintenance.

16. What are integrity constraints?

17. What is the basic syntax for creating a table?

18. Write a short note on UNIQUE constraint in SQL.

19. What is the use of DELETE command in SQL? Give its syntax.

20. Discuss the axiom of Pseudo-transitivity.

21. What is first normal form?

22. When to say that a decomposition is lossless?

SECTION – C (Short essay)

(Not to exceed **120** words, answer any **six** questions. Each question carries **4** marks)

23. Explain the concept of foreign key.

24. Write any four reasons for the failure of the INSERT operation.

25. How to identify entities in ER diagrams?

26. Compare one-to-one relationships and many-to-many relationships with examples

27. What are the guidelines for designing a secure system?

28. Discuss functional dependency with example.

29. Discuss different comparison operator used in WHERE clause with examples.

30. Write in detail about lossy decomposition.

31. Discuss the objectives of the normalization process.

(6 × 4 = 24 Marks)

SECTION – D (Long essay)

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

32. Discuss UNION, DIFFERENCE, and CARTESIAN PRODUCT operations on relations with example.

33. Draw an ER diagram for Banking transaction.

34. Explain in detail different relational operators in relational algebra.

35. Explain second normal form and third normal form in detail.

(2 × 15 = 30 Marks)
