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Name
Reg. No

THIRD SEMESTER B.C.A. DEGREE EXAMINATION, NOVEMBER 2018

(CUCBCSS-UG)

Core Course

BCA 3B 03—DATABASE DESIGN AND RDBMS

(2014 Admissions)

Time: Three Hours

Maximum: 80 Marks

Part A

Answer all questions.

Each question carries 1 mark.

- 1. The term attribute refers to a ——— of a table.
- 2. The functional dependency exists in Normal Form.
- 3. E-R diagram stands for ———.
- 5. Establish unique values in a table can be possible by using ———— constraint.
- 6. Write statement which indicates that transaction T has started execution?
- 7. Name any type of lock.
- 8. A ——— is a special kind of a store procedure that executes in response to certain action on the table like insertion, deletion or updation of data.
- 9. Write example for granting permission.
- 10. Give example for cardinality ratio for a binary relationship.

 $(10 \times 1 = 10 \text{ marks})$

Part B

Answer all questions.

Each question carries 2 marks.

- 11. What is trigger? Write example.
- 12. Explain about responsibilities of DBA?
- 13. Discuss about domain constrain.

Turn over

- 14. Explain about the lost update problem?
- 15. Write the uses of HAVING and GROUP BY clauses of SQL statement.

 $(5 \times 2 = 10 \text{ marks})$

Part C

Answer any five questions. Each question carries 4 marks.

- 16. Draw E-R diagram which shows relationship between CUSTOMER and LOAN.
- 17. Explain about desirable properties of transactions.
- 18. Explain about SQL DDL commands.
- 19. What is view? Write syntax and give example.
- 20. Discuss about data types in SQL.
- 21. How Cursor is declared? What about the functionality of cursor?
- 22. Discuss about types of attributes.
- 23. How to implement a cursor for loop?

 $(5 \times 4 = 20 \text{ marks})$

Part D

Answer any five questions. Each question carries 8 marks

- 24. Explain about the main characteristics of the database approach.
- 25. Discuss about anomalies in Normalization. Explain THIRD and BCNF normal forms.
- 26. Explain about aggregate functions in SQL with suitable example.
- 27. Discuss about concurrency control techniques.
- 28. Discuss about types of Locks with appropriate statements.
- 29. Discuss about database triggers?
- 30. Write SQL DDL and SQL DML statements based on the given table student (<u>ID</u>,name, dept_name,tot_cred) and course(<u>course_id</u>,title,dept name,credits)
- 31. Discuss about database system architecture.

 $(5 \times 8 = 40 \text{ marks})$