C 31133 (Pages : 2) Name.....

Reg. No.....

THIRD SEMESTER B.C.A. DEGREE EXAMINATION, NOVEMBER 2017

(CUCBCSS—UG)

Core Course

BCA 3B 03—DATABASE DESIGN AND RDBMS

Time : Three Hours Maximum : 80 Marks

Part A

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

1. Integrity problem is related to the ———— of the database.
2. The term used for information retrieval in DBMS is called ————.
3. The most common approach of Normalization is called ————.
4. Name of a schema which describes the database design at the physical level.
5. Name of a tool which E-R diagrams can be drawn.
6. Name of a command which joins multiple tables
7. Name of any trigger event.
8. Name of the entity set which has no primary key.
9. Expansion of ACID.
10. A row named in a table is called ————.

(10 × 1 = 10 marks)

Part B

Answer **all** *questions.*
Each question carries 2 *marks.*

11. Define relation. Specifying its components also.
12. What are the aggregate functions in SQL ?
13. How stored procedure is differentiating from simple SQL statement ?
14. What are the different transaction operations ?
15. Explain about the basic parts of trigger.

(5 × 2 = 10 marks)

Turn over

Part C

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

16. Draw the architecture of Database System Environment.
17. What are the basic queries in SQL ?
18. Define data independence. What are they ? Explain.
19. Explain about levels of Locks.
20. How to implement integrity constraints in SQL statement with example ?
21. What is normalization ? Explain about data anomalies.
22. Discuss about mapping cardinalities.
23. What is a trigger ? How database trigger is applied. Explain ?

(5 × 4 = 20 marks)

Part D

Answer any **five** *questions.*
Each question carries 8 *marks.*

24. Explain about the main characteristics of the database approach versus the file-processing.
25. Why concurrency control is needed in transaction processing ? Explain in detail.
26. Explain about relational Constraints and relational database schemas.
27. Write corresponding SQL statements to Substring Comparisons, arithmetic operators and Ordering.
28. Explain the uses of normalization. Explain about 1NF, 3NF, NF and BCNF with appropriate examples using tables.
29. Database is the collection of interrelated data and set of programs that allow users to access and modify these data. Write about the concept of view like data abstraction, instances and schemas and data models.
30. Differentiate between SQL DDL and SQL DML with suitable examples based on the relation student(ID, name, dept_name, tot_cred) and course(course_id, title, dept_name, credits).
31. Write a procedure that drops the objects specified by the user. This procedure also takes wildcards for object names. For example, if the user wants to drop all object with name like 'emp_%'. And it should be applied to both static and dynamic SQL.

(5 × 8 = 40 marks)