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Printed Pages : 3

13/5/19 13/5/19

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BCA / M-19

RELATIONAL DATABASE MANAGEMENT SYSTEM

Paper–BCA-244

Time allowed : 3 hours] *[Maximum marks : 80*

Note: *Attempt **five** questions in all selecting exactly **one** question from each unit. **Question number 1 is compulsory.** All questions carry equal marks.*

Compulsory Question

1. Differentiate between following:

(i) Table and view

(ii) Alter and update

(iii) Drop and delete

(iv) While and For loop

(v) Tuple and domain relational calculus

(vi) Intersection and Difference set operation

(vii) Functional dependency and fully functional dependency

(viii) Primary key and secondary key 8×2=16

Unit–I

2. Explain with examples the following operations performed on relations:

(i) SELECT

(ii) PROJECT

(iii) CARTESIAN PRODUCT

(iv) JOIN. 16

3. State and explain various Codd's rule for relational model using suitable examples. 16

Unit–II

4. Explain the concept of normalization and the need of normalization. Explain First, second and third normal forms with the help of appropriate examples. 16

5. (a) What is BCNF? Prove that every relation that is in BCNF is also in 3NF. 8

(b) Write short note on data redundancy and transitive dependencies. 8

Unit–III

6. (a) How can you perform following in SQL?

(i) Creating a table

(ii) Sorting the data in a table

(iii) Creating an index

(iv) Granting and removing the permission. 8

(b) Describe various numeric and group functions in SQL using suitable examples. 8

7. (a) Explain various data types in SQL. 8

(b) Describe various string operators in SQL using appropriate examples. 8

Unit–IV

8. (a) Describe the various features and advantages of PL/SQL. 8

   (b) Discuss various operators used in PL/SQL. 8

9. What is a cursor? Explain various types of cursors by giving example for each types of cursor. 16