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INSTITUTE OF AERONAUTICAL ENGINEERING (Autonomous)

Four Year B.Tech V Semester End Examinations(Regular) - November, 2019

Regulation: IARE – R16 ADVANCED DATABASES

Time: 3 Hours

(IT)

Max Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

UNIT – I

- (a) Write and explain syntax to create trigger in DB2, starburst. [7M]

(b) A family tree represents the structure of a family. Show how the information of a family tree can be represented by means of a relational database, possibly starting with a simplified structure, in which only the male line or only the female line is represented (that is, only the offspring of the male or the female members of the family are represented). [7M]
- (a) List out and elaborate the applications of active databases in detail. [7M]

(b) Discuss rule modularization and explain the approaches for providing termination of active rules. [7M]

UNIT – II

- (a) Define temporal database. Explain the time domain and data types of temporal database elaborately. [7M]

(b) Explain the language constructs of transact SQL in detail. [7M]
- (a) Write note on time data types? Explain the associating facts with time? [7M]

(b) Write SQL queries for finding the number of employees in each department and displaying the eno, ename and dname, location of an Employee called “XYZ” based on Employee Table (eno, ename, deptno, sal) and Department Table (dno, dname, location). [7M]

UNIT – III

- (a) Why recursive SQL? Write short notes on basic components of recursive SQL with example. [7M]

(b) Create a tables of student (Name, Major, Year), Took (Name, Course, Grade) and write the query for “Find the senior students who are NOT missing any requirement” using double negation? [7M]
- (a) Describe in detail the syntax and semantic of data log. [7M]

(b) Discuss the rule rewriting methods. Illustrate left linear and right linear recursions with examples. [7M]

UNIT – IV

7. (a) Illustrate the application of GEMINI for 1-D time series indexing. [7M]
(b) Discuss in detail the process of retrieving text. [7M]
8. (a) Explain about secondary keys method in detail. [7M]
(b) How R-Trees are the extension of the B-Trees for multidimensional objects? [7M]

UNIT – V

9. (a) Explain the uncertainty in image database and temporal database with an example. [7M]
(b) Briefly describe about lattice-based approaches and with suitable example. [7M]
10. (a) Discuss in details about lattice based RDBMS and give the notations and selection relation with examples. [7M]
(b) State and prove the models of Uncertainty with suitable examples.
i) Fuzzy logic
ii) Fuzzy Sets [7M]