BTS 141 (C)

B.TECH. DEGREE VI SEMESTER EXAMINATION IN
COMPUTER SCIENCE AND ENGINEERING
NOVEMBER 2001

CS 603 DATABASE MANAGEMENT SYSTEM
(1995 Admissions)

Time: 3 Hours Maximum Marks: 100

MODULE - I

I. (a) What are the difference between physical and logical view of a database? Explain with examples. (10)

(b) In a company many products are supplied by many customers. A system is to be designed to control the inventory in such a way that information should be obtained on who supplies what. Develop an E-R model. Explain your logic. (10)

OR

II. (a) Explain the overall structure of DBMS with diagrams. (10)

(b) What are the disadvantages of conventional files over DBMS's? (10)

MODULE - II

III. (a) Distinguish DDL and DML with suitable examples. (10)

(b) Assume you have a table students (No NUMBER(5), Name Varchar (20)). If you want to modify the name data type to Varchar (25) what command you may use? Explain the syntax of it. (10)

OR

IV. (a) Distinguish super key, primary key and candidate key with suitable examples. (10)

(b) Explain the various DML commands with suitable examples. (10)

MODULE - III

V. (a) Discuss some Query Optimization techniques. (10)

(b) Give suitable examples that describe the five basic operations in relational algebra. (10)

OR

VI. (a) Describe fully functional dependency with suitable examples. (10)

(b) Consider the table:

S(*S#*, *Sname*, *city*)

P(*P#*, *Pname*, *Pcole*)

SP((*S#*, *P#*, *Qty*)

Write SQL Queries.

(i) To get all suppliers who supply nut and reside in london.

(ii) Get the product names of parts supplied by supplier 'Johns' (10)

MODULE - IV

VII. (a) What are the anomalies of 2NF form. How reducing it to 3NF can solve the problems? (10)

(b) Distinguish BCNF & 4NF with examples. (10)

OR

VIII. (a) What is a MVD? Distinguish it from KD with suitable examples. (10)

(b) Consider the relation (loan no:, Customer-name, Customer-Street, Customer-City). What are the problem of this BCNF normal form? (10)

MODULE - V

IX. (a) Explain the method of dead lock detection and recovery. (10)

(b) Explain the "Read only locks" in distributed system. (10)

OR

X. (a) Explain the advantages of a distributed system over Ordinary one. (10)

(b) How you detect a deadlock and suggest any two techniques to recover from it? (10)

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