

Roll No.

Total No. of Questions : 09]

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B. Tech. (Sem. - 6th)

RELATIONAL DATABASE MANAGEMENT SYSTEM - II

SUBJECT CODE : CS - 302

Paper ID : [A0470]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Section - A is Compulsory.
- 2) Attempt any Four questions from Section - B.
- 3) Attempt any Two questions from Section - C.

Section - A

Q1)

(10 × 2 = 20)

- a) Write the functions of a DBA.
- b) What are the structural constraints? Give example.
- c) What is the difference between conceptual view and external view of a database?
- d) Write SQL statements : to see the structure of a table, and to list the constraints on the specific table of the database.
- e) What is the difference between Foreign Key and Primary Key?
- f) Create a view in SQL. How it differs from base table?
- g) What is the importance of cursor? Write the syntax to declare a Cursor for select statement.
- h) What are the applications of Query by Example?
- i) What are the components of a Package? Explain.
- j) What is the difference between trigger and procedure?

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Section - B

(4 × 5 = 20)

Q2) Explain, how different normal forms normalizes database with at least one example. Also specify, how these are helpful in good database design.

Q3) Consider, the following database schema for supplier-parts database (suppliers (Sno) supply parts (Pno) in different cities) :

Supplier (Sno, Sname, date_ of _ Birth)

Parts (Pno, Pname, color, weight, city, Sno)

Write SQL statements to :

- (a) List Sno, Sname, Pno (to which Sno supplies parts) for each employee.
- (b) Add a new constraint of uniqueness on Sname.
- (c) Change the color of each Pno > 55 to 'Pink'.
- (d) List the Sno, who are supplying total weight > 1000 from parts table.
- (e) Add a new attribute SFatherName in Supplier table.

Q4) Explain in brief Oracle server.

Q5) Write a procedure to add any three numbers, given by the user.

- Q6)** (a) What is index? How, the different types of indexes are created?
(b) Write short note on Transact-SQL PLUS.

Section - C

(2 × 10 = 20)

Q7) Consider the following schema :

Employee (EmpNo, Name, Dno, salary, designation)

department (Dno, deptt_name, Headno)

Dependent (EmpNo, Dependent_name, DOB)

In the above schema, **domain of headno is same as that of EmpNo.**

Write queries in SQL to :

- (a) List the employees getting the salary > 5000 in Ascending order.
- (b) Add a new record in the above schema.
- (c) List the department details paying Average salary > 1000 to its employees.
- (d) Increase the salary of all the employees of Dno>2, whose name start with letter 'R' by 1000.
- (e) Count the dependents of each employee.

- Q8)** (a) What are different looping statements in PL/SQL. Explain the syntax of each with at least one example.
- (b) Write short note on Security issues in DBMS.
- Q9)** (a) Write a procedure to delete employee (consider database given in Q7) on the basis of EmpNo. Also write PL/SQL code to call this procedure.
- (b) What is the difference between integrity constraints and database Triggers? Explain the syntax of different types of trigger with at least one example.

