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**B.C.A. (Part III) EXAMINATION, 2007**

**RELATIONAL DATABASE MANAGEMENT SYSTEM**

**Paper XXIV**

**Time allowed : Three Hours**

**Maximum Marks : 50**

*Attempt any five questions. All questions carry equal marks.*

1. Create the following relations :

(a) Customer (custid, custname)

Order (custid, custname, orderid, orderdate)

Item (custid, orderid, itemid, itemname, qty, rate  
amt,)

*Note :* Assumption can be handle (made), place suitable referential integrity constraints and other constraints such as not null, unique.

*Note :* Use coding standard and don't write wrong keyword, if so then there will be deduction of marks.

- (b) Write syntax for insert update and delete query with an example.
2. (a) Write a PL/SQL block to illustrate the working of IF-THEN-ELSE. If a number is greater than the other number then it swap the two numbers otherwise it doubles them.
- (b) Write a PL/SQL code. Insert a new record in table emp after abstaining values from the user.
- (c) Write a PL/SQL block that obtain an empno from user if his/her salary less than 900/- then delete that record home table.
3. What is the package and how package can be created ? Explain it with the help of an example (Package should contain of last function and one procedure).
4. (a) What is the trigger ? Write the types of trigger and give examples of BEFORE and AFTER trigger.
- (b) Write a trigger that will execute when the duplicate value is entered in emp table and dietary on ever message "Duplicate value is not allowed".

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5. How do we handle error in PL/SQL block ?
6. Explain the architecture of DDBMS and its advantages and disadvantages ?
7. Why do we use procedure and function in PL/SQL ? Demonstrate with example.
3. Write short notes on :
- (a) Set operation;
- (b) Join operation;
- (c) Query optimization;
- (d) Recovery technique.

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**B.C.A. (Part III) EXAMINATION, 2008**  
**RELATIONAL DATABASE MANAGEMENT**  
**SYSTEM**

Paper XXIV

**Time allowed : Three Hours**

**Maximum Marks : 50**

*Attempt any five questions. All questions carry equal marks.*

1. Explain the difference between internal, external and conceptual schemas. How are these different schema layers related to the concept of logical and physical data independence ?
2. (a) What is transaction ? Explain 'Transaction Management' in DBMS in detail.  
(b) What is the difference between explicit and implicit transaction control ?

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3. (a) What is 'trigger' ? What is the difference between a trigger and procedure ?

(b) What is 'ODBC' ? Explain its architecture.

4. Create a database for the following tables and mention the domain constraints, integrity constraints for the same—

— Branch (Office-code, Office-desc, City)

—Employee (Employee-code, Employee-name, Type-code)

—Type (Type-code, Type-details)

—Account (Account-no, Branch-code, Employee-code, Balance)

—Transaction (Account no, Dr-code, amount)

—Code (Dr-code, Dr-details)

Underlined one are the primary key in each table are establish a relation with foreign key, which can be seen with same name in other tables. Perform the following :

(i) Write a SQL for consolidate the amount from transaction file on account-no and Dr-code and update the same with amount. In case Dr-code = 1 reduce the amount from Balance and incase the Dr-code = 2, add the amount in balance.

(ii) Write a SQL for finding maximum account of an employee among all the branches in a city. This list should be citywise.

5. Why do we use procedure and function in PL/SQL ? Demonstrate with example.

6. What are 'views' ? How are they different from actual tables ? Whenever changes are made in a table, are they automatically reflected in view and vice versa ? What is the special utility of views for which they are created ? Explain with example.

7. (a) Create a procedure to display the employee Name from Emp table (Database). Make the suitable assumptions.

- (b) Write a function to receive a date and number of years to be added and return the value.

8. Write short notes on :

- (a) Data Mining;  
(b) Join Operations;  
(c) Data warehousing;  
(d) Dead-locks.

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**B.C.A. (Part III) EXAMINATION, 2009**  
**RELATIONAL DATABASE MANAGEMENT SYSTEM**

Paper XXIV

**Time allowed : Three Hours**

**Maximum Marks : 50**

*Attempt any five questions. All questions carry equal marks.*

1. (a) Explain the architecture of distributed processing system.
- (b) Describe how to incrementally maintain the results of the following operations, on both insertions and deletions :
  - (i) Union and set difference;
  - (ii) Left outer join.
2. (a) Consider a file system such as the one on your favourite operating system.
  - (i) What are the steps involved in creation and deletion files, and in writing data to a file ?

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- (ii) Explain how the issues of atomicity and durability are relevant to the creation and deletion of files, and to writing data to files ?
  - (b) Explain the distinction between the terms serial schedule and serializable schedule ?
3. What is a recoverable schedule ? Why is recoverability of schedule desirable ? Are there any circumstances under which it would be desirable to allow non-recoverable schedules ? Explain your answer.
4. (a) When a transaction is rolled back under timestamp ordering, it is assigned a new timestamp. Why can it not simply keep its old timestamp ?
- (b) Under what conditions is it less expensive to avoid deadlock than to allow deadlocks to occur and then to detect them ?
5. (a) Discuss the relative advantages of centralized and distributed databases.
- (b) When is it useful to have replication or fragmentation of data ? Explain your answer.

6. (a) What is the difference between WHERE and HAVING clause ?
- (b) What is the difference between SELECT INTO and CREATE VIEW commands ?
- (c) What is the difference between column constraints and table constraints ?
7. Write a SQL statement to list all the employees in the following format :
- employee (name, department, dept no.)
- (i) List the information which is sorted on emp. name.
  - (ii) Find all those employees whose job does not start with 'M'.
  - (iii) Display all employees who were hires during 1995.
8. Give a network data structure diagram for the following relational database :
- (a) lives (person-name, street, city)
  - works (person-name, company-name, salary)
  - location-in (company-name, city)
  - manages (person-name, manager-name)
  - (b) course (course-name, room, instructor)
  - enrolment (course-name, student-name-grade).