DSE DBMS Question bank

1. What is transaction? Discuss ACID properties of Transactions.

2. Explain time stamp-based protocol.

3. Define Normalization. Discuss 1NF,2NF and 3NF in detail.

4. Write a short note on conflict and view serializability.

5. Explain view serializabilty with suitable example.

6. Explain lock based protocol.

7. A) Create the following tables & insert the records in the table.

      branch (branch_name, branch_city, assets)

      customer (customer_name, customer_street, customer_city)

      loan (loan_number, branch_name, amount)

      borrower (customer_name, loan_number)

      account (account_number, branch_name, balance)

      depositor (customer_name, account_number)

7. 1. Find the names of all branches in the loan relation

7.2. Find all loan number for loans made at the Perryridge branch with loan amounts greater than $1200.

7.3. Find all customers who have a loan, an account, or both

7.4. Find the number of tuples in the customer relation.

7.5. Delete all account tuples at the Perryridge branch

7.6. Modify the records of customer relation for the customer_city from Mumbai to Calcutta.

7.7. Drop all the tables from the database.

8. Write a query in sql to create a table employee and department.
Employee(empno,ename,deptno,job,hiredate)

Department(deptno,dname,loc)

 1. Include the following constraints on column of emp table.

a) to make the empno as primary key of the employee table and deptno as a primary key of department table

2) Perform the following complex queries

a) List dept no., Dept name for all the departments in which there are no employees in the department.

b) Count of number of employees in department wise.

9. Write a query in sql to create a table employee and department.
Employee(empno,ename,deptno,job,hiredate)
Department(deptno,dname,loc)

1. Include the following constraints on column of emp table.
 a) to make the empno as primary key of the employee table and deptno as a primary key of department table
b) Select all records where ename starts with 'S' and its length is 6 char.
c) Select all records where ename may be any no of character but it should end with 'R'.
d) Create a new user "abc" and give all privileges to it.

10. Write a short note on trigger and views.

11. Explain BCNF with example. Discuss its advantages and disadvantages in detail.

12. Explain string SQL commands(Pattern) with example.

13. Write a short note on nested queries.

14. Perform different types of joins with example.

15. Write a short note on recovery system.