Advanced DBMS Lab Exam Questions

1. a) Design and Develop SQL DDL statements which demonstrate the use of SQL commands such as Create, Insert, Select, Alter, View, Index, Truncate and Drop. (Insert minimum 8 rows in the table).

- Cust_novarchar(10) Primary Key,FnameVarchar(20) Not NULL, MnameVarchar(20),LnameVarchar(20) Not NULL,Address Varchar(30), City Varchar(15),State Varchar(20),Mobile_no Number(15) Not NULL, Occupation Varchar(20),Company_NameVarchar(25).

b) Write a PL/SQL program to check whether the given number is palindrome or not.

2. Design at least 10 SQL queries for suitable database application using SQL DML Statements: Insert, Select, Update, Delete with operators, functions, set operator and aggregate functions. (Insert minimum 5 rows for each table)

- deposit(actno, cname, amount, bname, opendate)
- branch(bname, city)
- customer(cname, city)
- borrow(loanno, cname, bname, amount)Sub Query:
  1) List name of depositors having account at 'Alappuzha'.
  2) List account date of customer 'Anil'.
  3) List account no. and depositor name of customers having amount between 40,000 and 80,000.
  4) List customer from depositor starting with 'A'.
  5) List all the customers who are both depositors and borrowers.
  6) List total loan.
  7) List maximum deposit of customers living in Kollam.
  8) List branch names and branch wise deposit.
  9) List the branches having sum of deposit more than 4000.
  10) Update 10% interest to all depositors.
  11) Change living city of the Alappuzha branch borrowers to Ernakulam.
  12) Delete branches having deposit from Calicut.

b) Write a PL/SQL program to find the reverse of a number.

3. Design at least 8 SQL queries for suitable database application using SQL DML Statements:

- Location(Location_Id integer, Reginal_Group varchar(20))
- Department (Department_Id, Name, Location_Id)
- Job(Job_Id Integer,Function Varchar(30))
- Employee(Employee_Id, Lastname ,Firstname, Middlename, Job_Id, Manager_Id, Hiredate, Salary, Department_Id)
- Loan(Employee_Id, Firstname , Loan_Amount)

Sub Query:

1) Perform all types of JOIN operations on Employee and Loan tables.
2) Find out no.of employees working in "Sales" department
3) Find out the employees who are not working in department 10 or 30.
4) List out the employees whose name start with "s".
5) List out employee id, last name in descending order based on the salary column.
6) How many employees who are working in different departments wise in the organization
7) Display the employee who got the maximum salary.
8) Update the employees' salaries, who are working as Clerk on the basis of 10%.
9) Delete the employees who are working in accounting department.
10) List out the department wise maximum salary, minimum salary, average salary of the employees
11) How many employees who are joined in 1985.

b) Write a PL/SQL program to find the factorial of a number.

4. Create a student database with the fields: (SRN, Sname, Degree, Sem, CGPA)

Insert 10 Student's details

1. Display all the documents

2. Display all the students in MCA

3. Display all the students in ascending order

4. Display first 5 students

5. Display students 5,6,7

6. List the degree of student "Rahul"

7. Display students details of 5,6,7 in descending order of CGPA

8. Display all the MCA students with CGPA greater than 6

b) Write a PL/SQL program to find the volume of a cuboid.