1. **Design and Develop SQL DDL statements which demonstrate the use of SQL objects such as Table, View, Index.**

**2. Design at least 10 SQL queries for suitable database application using SQL DML statements: Insert, Select, Update, Delete with operators.**

**3. Design at least 10 SQL queries for suitable database application using SQL DML statements: all types of Join, Sub-Query and View.**

**4. Unnamed PL/SQL code block:**

**Write a PL/SQL block of code for the following requirements:-Schema:**

**1. Borrower(Rollin, Name, DateofIssue, NameofBook, Status)**

**2. Fine(Roll\_no,Date,Amt)**

**Accept roll\_no & name of book from user.**

**Check the number of days (from date of issue), if days are between 15 to 30 then fine amount will be Rs 5per day.**

**If no. of days>30, per day fine will be Rs 50 per day & for days less than 30, Rs. 5 per day.**

**After submitting the book, status will change from I to R.**

**If condition of fine is true, then details will be stored into fine table.**

**5. Cursors:**

**Write a PL/SQL block of code using parameterized Cursor, that will merge the data available in the newly created table N\_RollCall with the data available in the table O\_RollCall. If the data in the first table already exist in the second table then that data should be skipped.**

**6. PL/SQL Stored Procedure and Stored Function.**

**Write a Stored Procedure namely proc\_Grade for the categorization of student. If marks scored by students in examination is <=1500 and marks>=990 then student will be placed in**

**distinction category if marks scored are between 989 and900 category is first class, if marks 899 and 825 category is Higher Second Class.**

**Write a PL/SQL block for using procedure created with above requirement.**

**Stud\_Marks(name, total\_marks) Result(Roll,Name, Class)**

**7. Database Trigger**

**Write a database trigger on Library table. The System should keep track of the records that are being updated or deleted. The old value of updated or deleted records should be added in Library\_Audit table**

**8. MongoDB Queries:**

**Designa nd Develop MongoDB Queries using CRUD operations.(Use CRUD operations)**

**9. MongoDB – Aggregation and Indexing:**

**Design and Develop MongoDB Queries using aggregation and indexing with suitable example using MongoDB.**

**10. MongoDB – Map-reduces operations:**

**Implement Map reduces operation with suitable example using MongoDB.**