# K. J. Somaiya College of Engineering, Mumbai-77

(A Constituent College of Somaiya Vidyavihar University)

Department of Computer Engineering

# Subject: Relational Database Management Systems

**Session: 2023-24 Sem: IV**

LIST OF EXPERIMENTS

**Subject: Relational Database Management Systems Class : S. Y. Computer Engineering (Semester – IV) Year : 2023 – 2024 (Even Term)**

**Course Objectives (CO)**

| **CO** | **Objective** |
| --- | --- |
| CO 1 | Understand the features of Relational Database Management Systems |
| CO 2 | Develop relational database design using the designed Entity-Relationship model. |
| CO 3 | Use SQL for Relational database creation, maintenance and query processing |
| CO 4 | Understand and analyze indexing, hashing, Query processing, query optimization, and  Normalization of relational database |
| CO5 | Apply the transaction, concurrency and recovery technique |

| **Sr. No.** | **Experiment** | **Course Outcomes** |
| --- | --- | --- |
| 1 | Problem Definition and Design of Extended-Entity-Relationship  diagram | CO1,CO2 |
| 2 | Mapping EER Model to Relational Model | CO2 |
| 3 | Implementation of Database in SQL -DDL | CO3 |
| 4 | DML – select, insert, update and delete, JOIN operations | CO3 |
| 5 | Queries based on Advanced SQL -Views, Triggers | CO3 |
| 6 | Queries based on Advanced SQL - Procedure, Function, Cursors | CO3 |
| 7 | Indexing - Create Index and observe the evaluation statistics of  query execution with and without Index | CO4 |
| 8 | 1. Implement Transaction Control Language (TCL) 2. Implement Data Control Language (DCL) | CO3, CO5 |
| 9 | Virtual lab experiment |  |

SQL Tool- Postgres preferrable/ any open-source as per students’ convenience

**Subject In-charges:**

Ms. Bharathi H N

Ms. Jyoti Rao

Ms. Veena Badgujar

Ms. Snehal Shinde