## ANURAG ENGINEERING COLLEGE

(An Autonomous Institution)

# (CS407PC) DATABASE MANAGEMENT SYSTEMS LABORATORY

II Year B. Tech. IT - II Sem

L T P C 0 0 2 1

# **Course Objectives:**

- To introduce ER data model and Relational data model
- To Design database schema for a given application and apply normalization.
- To gain knowledge of SQL commands for data definition and data manipulation.
- To understand the basics of querying.
- To develop solutions for database applications using procedures, cursors and triggers.

**Co-requisites:** "Database Management Systems"

### List of Experiments:

- 1. Concept design with E-R Model
- 2. Relational Model
- 3. Normalization
- 4. Practicing DDL commands
- 5. Practicing DML commands
- 6. A. Querying (using ANY, ALL, UNION, INTERSECT, JOIN, Constraint set c.)
  - B. Nested, Correlated sub queries
- 7. Queries using Aggregate functions, GROUP BY, HAVING and Creation and dropping of Views.
- 8. Triggers(Creation of insert trigger, delete trigger, update trigger)
- 9. Procedures
- 10. Usage of Cursors

## **Text Books:**

- 1. Database Management Systems, RaghuRamaKrishnan, Johannes Gehrke, Tata Mc Graw Hill,3<sup>rd</sup>Edition
- 2. Database System Concepts, Silber schatz, Korth, McGrawHill, Vedition.

#### **Reference Books:**

- 1. Database Systems design ,Implementation, and Management, Peter Rob& Carlos Coronel 7<sup>th</sup>Edition.
- 2. Fundamentals of Database Systems, Elmasri Navrate, Pearson Education
- 3. Introduction to Database Systems, C.J. Date , Pearson Education
- 4. Oracle for Professionals, The X Team, S. Shahand V.Shah, SPD.
- 5. Database Systems Using Oracle: A Simplified guide to SQL and PL/SQL ,Shah, PHI.
- 6. Fundamentals of Database Management Systems, M.L. Gillenson, Wiley Student Edition.

#### **Course Outcomes:**

- 1. Develop ER data model and Relational data model for a database.
- 2. Design database schema for a given application and apply normalization.
- 3. Apply SQL commands for data definition and data manipulation.
- 4. Apply the basics of SQL for retrieval and management of data.
- 5. Develop solutions for data base applications using procedures, cursors and triggers.

## **CO-PO-PSO** Mapping:

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO-1	M	Н	Н	Н	Н	L	M						M	Н
CO-2	M	Н	M	M	M	M	L						M	Н
CO-3	Н	Н	Н	Н	Н	L	M						M	Н
CO-4	M	Н	Н	Н	М	L	М						M	Н
CO-5	M	M	L	L	Н	L	M						L	Н

H-HIGH M-MODERATE L-LOW