SHRI GNANAMBICA DEGREE COLLEGE, MADANAPALLE
(AUTONOMOUS)
PROGRAMME: B. Com (Computer Applications)
II YEAR-IV-SEM
COURSE: Database Management System with Oracle
QUESTION BANK

UNIT – I

Short Answer Questions

1. Define the terms **data, information, metadata, and database**.
2. Write any five differences between **DBMS and file systems**.
3. Explain the **Hierarchical and Network data models**, along with their advantages and disadvantages.
4. Explain **Star Schema and Snowflake Schema**, including their advantages and disadvantages.
5. What is **data independence**? Explain **logical and physical data independence** with examples.
6. Explain **schema, instance, and database state** with suitable examples.

Long Answer Questions

1. Discuss the **characteristics of a Database Management System** and explain various real-world database applications.
2. Explain the **file processing system**. Describe its advantages and disadvantages.
3. What is a **data model**? Explain the different types of data models.
4. Describe the various **Data base Schema Designs**.
5. Explain the different types of **database users** with examples. Also, describe the **three-schema architecture** with a neat diagram.

UNIT – II

Short Answer Questions

1. Explain various **RDBMS terminologies**.
2. What is an **attribute**? Explain the different types of attributes.
3. What are **keys in RDBMS**? Explain primary key, foreign key, and unique key.
4. Explain **types and degrees of relationships** with a diagram.
5. Explain **functional dependency** with examples.
6. Explain **Third Normal Form (3NF)** and the purpose of normalization.

Long Answer Questions

1. What is the **Entity-Relationship (ER) model**? Explain entity, attributes, and relationships in the ER model.
2. Explain **Codd's rules** of the relational model.
3. Explain different types of **constraints in the relational model** and their importance.
4. Describe the different types of **keys** with examples.
5. What is **normalization**? Explain the different normal forms in RDBMS.

UNIT – III

Short Answer Questions

1. What is **SQL**? Explain the types of SQL commands.
2. Differentiate between **DELETE and TRUNCATE** statements.
3. Explain **database schema**.
4. Describe **ALTER and DROP** commands with examples.
5. Explain **DQL and DCL** with syntax and examples.
6. Write SQL statements for **INSERT, UPDATE, and DELETE** operations.

Long Answer Questions

1. What is a **Data Type**? Explain various **data types in SQL**.
2. Explain **set operations** in SQL with examples.
3. Explain various **SQL operators**.
4. Explain **DDL and DML** with syntax and examples.
5. Explain the clauses **WHERE, ORDER BY, and GROUP BY** with examples.

UNIT – IV

Short Answer Questions

1. Explain **relational set operations** in SQL with examples.
2. Explain how to create tables with **primary key and foreign key constraints**.
3. Explain **views** and their advantages in SQL.
4. Explain **string functions** in SQL with examples.
5. Explain **conversion functions** with examples.
6. Compare **inner join and outer joins** with suitable examples.

Long Answer Questions

1. Explain **nested queries** with examples.
2. Explain how to create tables with relationships and implement **key constraints**.
3. Discuss different types of **joins** with syntax and examples.
4. What are **SQL functions**? Explain various **date and numeric functions**.
5. Explain **string and conversion functions** in SQL.

UNIT – V

Short Answer Questions

1. What is **PL/SQL?**
2. Explain the **limitations of SQL** and the advantages of PL/SQL.
3. Explain **PL/SQL variables**.
4. Discuss **implicit cursors** in PL/SQL.
5. Explain **functions in PL/SQL** in detail
6. Explain **packages in PL/SQL** in detail

Long Answer Questions

1. Explain the **structure of a PL/SQL block** in detail.
2. Explain **conditional statements** in PL/SQL.
3. Explain **looping statements** in PL/SQL.
4. What are **cursors in PL/SQL**?
5. Explain **triggers and their types** with examples.