SHRI GNANAMBICA DEGREE COLLEGE: MADANAPALLE
(AUTONOMOUS)

II YEAR-IV SEM

PROGRAMME: COMPUTER SCIENCE – MINOR

BBA and BIOTECHNOLOGY
COURSE 3: DATABASE MANAGEMENT SYSTEMS

Unit I: Overview of Database Management System

5-Mark Questions

1. Define data, information, and database.
2. What is a Database Management System (DBMS)?
3. Explain the file-based system.
4. List the drawbacks of file-based systems.
5. List the advantages of the database approach.

10 -Mark Questions

1. Explain the difference between file-based systems and DBMS.
2. Discuss the classification of Database Management Systems.
3. Explain various data models used in DBMS.
4. Describe the components of a DBMS.
5. Explain the three-schema architecture of a database.

Unit II: Entity-Relationship Model

5-MarkQuestions

1. Define Entity-Relationship (ER) model.
2. Classify entity sets with examples.
3. Explain attribute classification.
4. Define relationship degree.
5. List the advantages of ER modeling.

10-Mark Questions

1. Explain the building blocks of an ER diagram.
2. Discuss relationship classification in ER diagrams.
3. Explain the process of reducing an ER diagram to tables.
4. Describe the Enhanced Entity-Relationship (EER) model.
5. Explain generalization and specialization in EER model.

Unit III: Relational Model

5-Mark Questions

1. Define the relational data model.
2. Explain the concept of keys in relational databases.
3. What is relational integrity?
4. Define relational algebra.
5. List the advantages of relational algebra.
6. What are functional dependencies?

10-Mark Questions

1. Explain Codd’s rules for relational databases.
2. Describe relational algebra operations in detail.
3. Explain about relational integrity.
4. Describe normalization and explain 1NF, 2NF, and 3NF.
5. Explain the importance of normal forms in database design.

Unit IV: Structured Query Language

5-MarkQuestions

1. Define SQL and its features.
2. List and explain data types in SQL.
3. Explain DDL commands.

4. Explain DML commands.
5. Write a short note on aggregate functions.

10-Mark Questions

1. Explain the structure and components of SQL commands.
2. Discuss Data Definition Language (DDL) with examples.
3. Explain selection and projection operations in SQL.
4. Describe join operations in SQL.
5. Explain set operations and subqueries.
6. Discuss the concept and advantages of views.

Unit V: PL/SQL

5-Mark Questions

1. Define PL/SQL.
2. Explain the structure of a PL/SQL block.
3. List PL/SQL language elements.
4. Write a short note on control structures.
5. Define database triggers.

10- Mark Questions

1. Explain the structure of PL/SQL with an example.
2. Discuss PL/SQL data types and operators.
3. Explain control structures used in PL/SQL.
4. Explain procedures and functions in PL/SQL.
5. Discuss database triggers and their types.