SHRI GNANAMBICA DEGREE COLLEGE: MADANAPALLE
(AUTONOMOUS)

I YEAR - II SEM

PROGRAMME: BCA (GENERAL)

COURSE 4: DATABASE MANAGEMENT SYSTEMS
QUESTION BANK

Unit I: Overview of Database Management System

5-Mark Questions

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

10 -Mark Questions

1. Discuss the classification of Database Management Systems.
2. Explain the difference between file-based systems and DBMS.
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. What is EER model?
6. What is an attribute inheritance and multiple inheritance.

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. Explain the constraints on specialization and generalization.
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.

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. List and explain data types in SQL.
2. Define SQL and its features.
3. Explain DDL commands.
4. What is a view in SQL?
5. Write a short note on aggregate functions.

10-Mark Questions

1. Explain about the types of SQL commands with examples.
2. Explain selection and projection operations in SQL.
3. Describe join operations in SQL.
4. Explain set operations and sub queries.
5. Discuss the concept and advantages of views.

Unit V: PL/SQL

5-Mark Questions

1. Define PL/SQL.
2. Explain about conditional statements in PL/SQL.
3. List PL/SQL language elements.
4. Write steps to create a PL/SQL program.
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.