

**BE Semester- 3rd (Information Technology) Question Bank**  
**(Database Management System)**

**All questions carry equal marks (10 marks).**

Q.1	What is Database? Explain the application of DBMS.
Q.2	Explain Database users and database administrator.
Q.3	Explain drawbacks of conventional files system over database system.
Q.4	What is data abstraction? Explain in detail with example.
Q.5	Explain types of data models with example.
Q.6	Define Entity sets, Relationship sets, attributes, weak entity sets.
Q.7	Describe the different components of ER diagram with suitable example.
Q.8	Explain basic issues in the design of ER database schema.
Q.9	Explain concepts of Specialization with diagram
Q.10	Explain ER schema Constrains.
Q.11	Define relational algebra and its fundamental operations.
Q.12	Explain 3NF. Illustrate with an example for each.
Q.13	Discuss join Dependencies and Fifth normal form and explain why 5NF.
Q.14	Explain primary key, foreign key with example.
Q.15	Explain Any Five SQL functions.
Q.16	Explain various types of join with suitable example.
Q.17	What is Data type? Explain various data type.
Q.18	What is constraint in database? Explain types of constraints with suitable example.
Q.19	Explain following terms: Record, table, column, field, and cell.
Q.20	Describe the embedded SQL with suitable example.
Q.21	Explain Aggregation with example.
Q.22	Explain concepts of Generalization with diagram.
Q.23	Explain BCNF. Illustrate with an example for each.
Q.24	Explain candidate key, super key, and unique key with example.
Q.25	Explain DDL and DML in detail.
Q.26	Discuss transaction management.
Q.27	Explain functional dependencies with example.
Q.28	Explain closure of attributes with example.
Q.29	Discuss transformation of relational expressions.
Q.30	Discuss atomicity and durability.
Q.31	Explain concurrent executions with example.
Q.32	Write short note on serializability.
Q.33	Explain Lock base protocol.
Q.34	Explain Deadlock handling.
Q.35	Explain Insert and delete operations with examples.
Q.36	Explain log-based recovery.
Q.37	Explain Database Triggers.
Q.38	Explain Stored Procedures and Stored Function.
Q.39	Write short note on Buffer management.
Q.40	Explain SQL string functions.

