SET A

1. Differentiate between a super key, a candidate key, foreign key and primary key.
2. Design an E-R diagram form an IT training group database that will meet information needs for its training program.
3. What is SQL? What are the two major category of SQL commands? Explain them.
4. What is the use of constraints? What are the different types of constraints that can be specified? Explain with examples.
5. What are the various unary operations in relational algebra? Explain with examples.
6. What is transitive dependency? Explain the normal form based on the concept of transitive dependency.
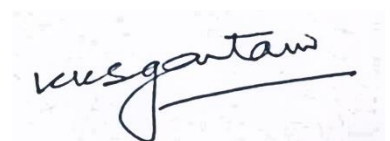
SET B

1. Explain the three-level architecture of DBMS with the help of an example. Mention its advantages also.
2. Define the term relationship. Illustrate the difference between relationship type and relationship instance.
3. Design an E-R diagram for a Bank database having customer, loan, account, employee & branch entity types.
4. What is data type of SQL? What are the various data types supported by standard SQL?
5. What is the outer join? Explain how does it differ from the inner join?
6. What is normalization? Define normal forms(1NF,2NF,3NF) with examples.

SET C

1. What is data independence and why is it important? What is the difference between logical and physical data independence?
2. What is an E-R model? What are its advantages?
3. Which operator of SQL is used to specify string pattern in the queries? Explain in details with examples.
4. Explain the term Domains, Attributes, Tuples, and Relations data model.
5. What is the role of join operations in relational algebra? Differentiate between equijoin and natural join?
6. What is normalization? Define normal forms(1NF,2NF,3NF) with examples.

Faculty Signature:

Name of the Course   : GE-3   Semester   : III

Name of the Paper   : Database Management System   Faculty Name : K.K.S. Gautam

Duration   : 1 Hour   Maximum Marks: 24

Date of Test   : 06.12.2023

SET D

1. What is database schema? Explain with the help of an example.
2. Define the term entity. What is the difference between strong entity and weak entity?
3. Discuss the difference between specialization and generalization with the help of an example.
4. Discuss the E-R diagram notations with example.
5. What are the various set operations in relational algebra? Explain with examples.
6. What is the role of join operations in relational algebra? Differentiate between equijoin and natural join?

Faculty Signature: