

Unit 1

1. What are the basic building blocks of data model? Explain with example.
2. Explain the degree of relationship sets in ER diagram
3. Explain in detail the different levels of Abstraction
4. Construct an ER-diagram for a car insurance company whose customers own one or more car each. Each car has associated with its zero to any number of recorded accidents.
5. Explain Hierarchical model and Network Model in detail.
6. List and Explain different levels of Abstraction
7. List and explain different attributes in ER Model.
8. State the advantages and disadvantages of the following data models:
9. Relational Model
10. Hierarchical Model
11. Network Model
12. Entity Relationship Model
13. Object Oriented database Model
14. What is use Of UML? State and explain the diagrams used for modeling in UML.
15. Explain in detail CODD's Rules.
16. What is database? Explain applications of DBMS.
17. Explain the importance of transaction management Component of DBMS.
18. Explain database system architecture with the help of diagram.
19. What is Mapping Cardinality? Explain with suitable example.

Unit 2

- a. Define:
 - i. Super Key
 - ii. Candidate Key
 - iii. Primary Key
 - iv. Foreign Key
 - b. What is Normalization? Explain three forms of normalization with suitable example.
 - c. Explain SET operators in relational algebra.
 - d. Explain the various integrity rules for databases.
 - e. Describe features of a good Relational database Design.
2. Justify with an illustrative example: 'BCNF is strong form of Normalization'.
 3. Write a note on 'Types of Keys'.
 4. Explain the various integrity rules for databases.
 5. Differentiate between BCNF & 3NF. How it is stronger than 3NF.
 6. Explain Significance of primary key, candidate key, super key.
 7. Explain the process of database design in brief.
 8. Explain the various integrity rules for databases.
 9. Compare relational Algebra with Relational Calculus.

Unit 3

1. What is View? What are its advantages?
2. Explain Group By and Order By clauses with examples.
3. Explain with examples the data types of SQL.
4. Describe various advantages of SQL.
5. Explain various types of constraints giving illustrative examples of each.
6. Define the term aggregate function. Explain any four numeric functions of SQL.
7. What are NULL values? Explain.
8. What is the significance of views in SQL? Explain with syntax and examples how a view can be created, updated and deleted.
9. State and explain different types of constraints in brief giving examples of each.
10. State and explain DDL commands of SQL with appropriate examples.
11. State and explain different types of constraints in brief giving examples of each.
12. Explain set operators of SQL with appropriate examples.
13. Explain the following terms of SQL with help of syntax and examples:
 - a. Group by clause
 - b. Order by clause
 - c. Sub-Queries
 - d. Pattern Matching
 - e. Having clause

Unit 4

1. Write the ACID Properties.
2. List and Explain various states of Transaction.
3. How Deadlock is prevented.
4. Explain the concept of Serializability. Explain in detail view Serializability
5. What is Transaction? Explain Life cycle of any Transaction.
6. Explain need of concurrency control in transaction Management.
7. Explain different ways to handle Deadlock
8. What is Transaction? Explain Life cycle of any Transaction.
9. What is Deadlock? Explain the methods of deadlock prevention, detection and recovery.
List and explain various states of Transaction.

Unit 5

1. Explain how triggers are created? Give suitable example.
2. What are packages? Explain with syntax and example.
3. List and Explain various features of PL/SQL .Difference between anonymous blocks and subprograms.
4. Explain the Comparison operator in PL/SQL with the help of example.
5. What are collections in PL/SQL ? Explain its types in brief.
6. What is an Exception in PL/SQL? Explain the types of it.
7. Define Sequences. Explain with examples the use of Sequences.
8. What is PL/SQL? Explain the advantages of PL/SQL
9. Compare between Anonymous block and sub programs in PL/SQL.
10. What are Packages in PL/SQL .List and explain various advantages of package.
11. What are Triggers? Explain with Syntax. Explain the benefits of it.
- 12.** What are cursors? Explain implicit and Explicit Cursor.
13. What is an Exception in PL/SQL? Explain the types of it.