

- Q. 1** Attempt any four of the following 16
- Explain Database architecture
 - What are the features of good relational database design?
 - Explain ERD issues and what are weak entity sets.
 - What is the ER model and write various symbols and their meaning used to draw an ER diagram.
 - Explain data model with its Importance.
 - Explain 1NF and 2NF in detail.
 - What is a database system? Give its advantages and disadvantages.
 - Explain Entity integrity and referential integrity in detail.
- Q. 2** Attempt any four of the following 16
- Explain Tuple relational Calculus and Domain relational Calculus.
 - Explain Data Independence in detail.
 - Explain Nested subqueries.
 - What are Null values ? Explain
 - Write comparison between tables and Views.
 - Describe Aggregate Function
 - Explain types of Constraints.
 - Describe Joined relations in SQL with an example.
- Q. 3** Attempt any four of the following 16
- Write a short note on collection and composite data types of PL/SQL .
 - Write a short note on Optimistic method .
 - Explain Serializability in detail.
 - Describe ACID properties for transaction.
 - Explain Cursors in PL/SQL.
 - Explain Deadlock Detection and Deadlock prevention.
 - Describe Two phase locking protocol.
 - Explain Time stamping method.
- Q. 4** Attempt any Three of the following 12
- Explain any Codd's rule.
 - Explain Selections and projection with examples.
 - What is PL/SQL? Give its advantages.
 - Write a short note on UML.
 - Explain Division operator in Relational Algebra.
 - Write a short note on Exception Handling.