

Q.P. Code : 1942

(3 Hours)

[Total Marks : 100]

- N.B. : (1) Question No.1 is compulsory.
 (2) Attempt any four questions from remaining six questions.
 (3) Assume suitable data wherever necessary.

1. (a) Explain Assertion with example. 5
 (b) Object ID and its properties. 5
 (c) Compare Data Warehouse and Data Mart. 5
 (d) Explain BCNF with example. 5
2. (a) Explain various constraints on Specialization & Generalization? 10
 (b) Explain with proper example nested relations in ORDBMS. 10
3. (a) Explain various architectures of Parallel database with advantages & disadvantages of each. 10
 (b) Explain Horizontal & Vertical fragmentation with example. 10
4. (a) Explain query processing in Distributed database. 10
 (b) Explain security and authorization in SQL. 10
5. (a) Explain design and implementation issues in mobile database? 10
 (b) Give pitfalls in relational database design & explain 3NF with suitable example. 10
6. (a) 'My Computer Peripherals' has sales department, sales have three dimension namely: 10
 (i) Time (ii) Product (iii) Store
 Schema consists of a central fact table and two measures :
 (i) Total_units_sold (ii) Total_collection
 Design a star & snowflake schema for the same.
 (b) Define a data warehouse. Explain the architecture of data warehouse with suitable Block diagram. 10
7. Write short note on (any two) : 20
 (a) OLAP operations
 (b) SQL 3 standards
 (c) Triggers
 (d) Spatial Database