



(Com. to CSE, IT)

Time: 3 hours

Code No: V0523

Max. Marks: 80

Answer any **FIVE** Questions All Questions carry **Equal** Marks

- 1. What is a data base system? Explain about various applications of it in detail.
- 2. What is a data? Explain about various data models in detail.
- 3. Explain in detail how database design is done?
- a) What is a table? Differentiate between tables and views in detail.b) Explain about destroying and altering tables and views in detail.
- 5. a) What is a basic SQL query? Differentiate between basic and nested queries.b) What is a NULL value? How would you disallow NULL values?
- 6. a) Explain about comparision operators in detail.b) What is decomposition? Explain the problems caused by decomposition.
- 7. What is recovery? Explain about various types of recovery in detail.
- 8. Write short notes on the following.
 - a) Cluster indexes.
 - b) Hash -based indexing.
 - c) Tree based indexing.





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- 1. What is DBMS? Differentiate between data base systems and file systems in detail.
- a) Explain about various data base languages in detail.b) Differentiate between DDL and DML in detail.
- 3. a) What is an attribute? Differentiate between attribute and entity .b) Explain about additional features of ER model in detail.
- 4. Explain about logical data base design in detail.
- 5. a) What is a select operation? Differentiate between select and project operations.b) Explain about division operation with an example.
- 6. a) Explain about various aggregative operators in detail.b) What is a trigger? Explain the significance of it.
- 7. a) What is atomicity? Explain about the implementation of it in detail.b) Explain about lock based protocols in detail.
- 8. Write short notes on the following.
 - a) Performance tuning
 - b) ISAM
 - c) Primary index.





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- a) What is data? Explain about various views of it in detail.
 b) Explain about ER model in detail.
- 2. Explain about the data base system structure in detail.
- 3. a) What is an ER diagram? Draw an ER diagram for a library management system.b) Explain about various types of relationship in detail.
- 4. What is a query? Explain about querying relational data in detail.
- 5. What is a join? Explain about various types of joins with clear examples.
- 6. a) What is a schema? Explain the reasons for schema refinement .b) Explain about fourth normal form in detail.
- 7. Explain about file organization and indexing in detail.
- 8. Write short notes on the following.
 - a) Log based recovery
 - b) Advanced recovery systems
 - c) Granularity.





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- a) What is data abstraction? Explain the significance of it in detail.
 b) Differentiate between abstract and detailed data.
- 2. Explain about the history of data base systems in detail.
- 3. What is a large enterprise? Explain about conceptual data design for large enterprises in detail.
- 4. a) What is an integrity constraint? Explain the significance of it.b) How would you enforce integrity constraints?
- 5. What is a relational calculus? Explain about the tuple and domain relational calculus in detail.
- 6. a) What is redundancy? Explain the problems caused by redundancy in detail.b) Explain about BCNF in detail.
- 7. a) What is a concurrent transaction? Explain about recovery with concurrent transactions.b) Explain about remote back-up systems in detail.
- 8. Write short notes on the following.
 - a) Functional dependency.
 - b) Third normal form
 - c) Storage manager.