



R20 Regulation

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

Subject code: 3E5HA

B.Tech V Semester Supplementary Examinations, June/July 2023

**DISTRIBUTED DATABASES**  
(CSE (DS))

Maximum Marks: 70

Date:04.07.2023 Duration: 3 hours

- Note: 1. This question paper contains two parts A and B.  
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.  
3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.  
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 What is meant by parallel database?
- 2 Why distributed databases are essential?
- 3 What are the distribution design issues?
- 4 What is meant by query processing?
- 5 What is meant by query Decomposition?
- 6 Define Transaction.
- 7 How do you perform object management?
- 8 Define Reliability.
- 9 Define abstract data types.
- 10 What are the kinds of object distribution design?

Part-B

Answer All the following questions.

(10MX 5=50Marks)

- 11 A. Briefly explain distributed data processing. (5 Marks)  
B. Explain relational database concept. (5 Marks)  
OR
- 12 A. Write and explain design strategies. (5 Marks)  
B. Explain architectural model for distributed DBMS. (5 Marks)
- 13 A. Explain SQL queries with suitable examples. (5 Marks)  
B. What are the steps in query optimization? (5 Marks)  
OR
- 14 A. Explain briefly about query decomposition & data localization. (5 Marks)  
B. Briefly describe the characterization of query processors. (5 Marks)
- 15 A. Explain the Optimistic Concurrency Algorithm. (5 Marks)  
B. Write notes on Deadlock Management. (5 Marks)  
OR
- 16 A. Explain serializability theory with an example. (5 Marks)  
B. Explain briefly about transaction management. (5 Marks)

- 17 A. Write about Local and Distributed reliability Protocols. (5 Marks)  
B. What are the Failures in Distributed DBMS? (5 Marks)
- OR
- 18 A. Write notes on Fault – tolerance in Distributed System. (5 Marks)  
B. Explain about parallel execution for hierarchical architecture. (5 Marks)
- 19 A. Explain briefly about object storage. (5 Marks)  
B. Write notes on Persistence Programming Language. (5 Marks)
- OR
- 20 A. Explain briefly about architectural issues in distributed object DBMS. (5 Marks)  
B. Compare RDBMS, OODBMS and ORDBMS. (5 Marks)