



R20 Regulation **Subject code:3E5GA&3E5HA**
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech V Semester Supplementary Examinations, December 2024

DISTRIBUTED DATABASE
(Common to CSE (AIML) & CSE(DS))

Maximum Marks: 70

Date:06.01.2025

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)		CO	Bloom Tx
1	Define Distributed Database	1	L1
2	Explain correctness rules of fragmentation?	1	L1
3	Explain Query Decomposition?	2	L1
4	Give an example of operation tree?	2	L1
5	Define Transaction?	3	L1
6	Explain workflows in transaction?	3	L1
7	What is meant by network partitioning?	4	L1
8	Explain parallel execution problems?	4	L1
9	Define abstract data types.	5	L1
10	What is meant by Horizontal class partitioning?	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		CO	Bloom Tx
11	Explain briefly about Fragmentation with suitable examples. [10M]	1	L2
OR			
12	Explain about Architectural Models for DDBMS. [10M]	1	L2
13	A) Explain characterization of query processing. [4M] B) Explain query decomposition. [6M]	2	L2
OR			
14	Explain any two distributed query optimization algorithms. [10M]	2	L2
15	A) Explain classification of transaction and work flow with examples. [6M] B) Explain deadlock management in distributed database. [4M]	3	L2
OR			
16	A) Explain briefly about timestamp-based concurrency algorithms. [5M] B) Explain optimistic concurrency control algorithms. [5M]	3	L2

17	A) Explain briefly about transaction management. [5M] B) Explain reliability concept and measures in distributed systems. [5M]	4	L2
	OR		
18	A) Explain general architecture of a parallel database system. [5M] B) Explain Shared nothing architecture with diagram. [5M]	4	L2
19	A) Explain object distributed design in distributed database. [5M] B) What do you mean by distributed object storage? [5M]	5	L2
	OR		
20	Compare OODBMS with RDBMS. [10M]	5	L2