R20 Regulation *Subject code: 3E6FD*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, November 2025

DISTRIBUTED DATABASES

(IT)

Maximum Marks: 70 Date: 15.11.2025 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.
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)		Marks	CO	BTL
1	Define Horizontal Fragmentation.	2M	1	L1
2	List out the Distribution design issues.	2M	1	L1
3	Define Data Localization.	2M	2	L1
4	List out the layers of Query Processing.	2M	2	L1
5	Define Atomicity and Consistency properties.	2M	3	L1
6	What is deadlock?	2M	3	L1
7	List out types of failures in distributed DBMS.	2M	4	L1
8	Define Availability.	2M	4	L1
9	Define Inheritance.	2M	5	L1
10	Write two differences between OODBMS and ORDBMS	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	Discuss about alternative design strategies (top-down design process or Bottom-up design process).	10M	1	L2
	OR			
12	Explain the following i) peer-to-peer distributed systems ii) MDBS architecture.	5M 5M	1	L2
13	Explain about Localization of Distributed Data in detail.	10M	2	L2
	OR			
14	Discuss about Join ordering and Semijoin based algorithms.	10M	2	L2
15	Explain about Concurrency Control Mechanisms.	10M	3	L2
	OR			
16	Explain about deadlock management in distributed DBMS.	10M	3	L2
17	Distinguish between parallel and distributed database systems.	10M	4	L2
	OR			
18	Explain distributed reliability protocols.	10M	4	L2
19	Discuss the architectural issues in distributed object DBMS	10M	5	L2
	OR			
20	Explain in brief about distributed object storage.	10M	5	L2