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, July 2024

DISTRIBUTED DATABASES

(Common to CSE (AI & ML) & CSE(DS))

Maximum Marks: 70 Date:30.07.2024 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	CO	Bloom Tx
All the following questions carry equal marks (10X2M=20 Marks)			
1	What do you mean by Distributed Database.	CO1	L1
2	What is meant by hybrid fragmentation?	CO1	L1
3	Why do you need to optimize a query?	CO2	L1
4	List the objectives of query processing.	CO2	L2
5	Define deadlock.	CO3	L1
6	Give the termination conditions of transaction.	CO3	L2
7	List the reliability protocols in distributed systems.	CO4	L2
8	What is meant by parallel database?	CO4	L1
9	Define object identity.	CO5	L1
10	What is the role of object-oriented languages in the implementation of Distributed Object Database Management Systems?	CO5	L2
	Part-B		
Answer All the following questions. (5X10M=50Marks)		CO	Bloom Tx level
11	Write and explain problem areas of distributed data base system. (10)	CO1	L3
	OR		
12	Explain briefly about Fragmentation with suitable examples. (10)	CO1	L2
13	A. How to transform global queries into fragment queries? (4) B. Explain a framework for query optimization. (6)	CO2	L2
	OR		
14	Explain briefly about query decomposition & data localization. (10)	CO2	L3
15	A. Define serializability and explain serializability in a distributed database. (5) B. How to prevent deadlock in distributed database? Explain with example. (5)	CO3	L3
	OR		
16	Discuss about the timestamp-based concurrency algorithms. (10)	CO3	L3

17	Describe about network partitioning. (10)	CO4	L2
	OR		
18	Explain the failures in DDBMS. (10)	CO4	L2
19	Describe the architectural issues in distributed object DBMS. (10)	CO5	L3
	OR		
20	Distinguish between object-oriented DBMS and object relational DBMS. (10)	CO5	L3