



R22 Regulation

Subject code: 4P5HB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech V Semester Regular Examinations, December 2024

DISTRIBUTED DATABASES

(CSE(DS))

Maximum Marks: 60

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 10 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 (10X1M=10 Marks)			
1.a)	Define the distributed databases.	1	L1
b)	Write the reason for fragmentation.	1	L2
c)	Define query with respect to distributed databases.	2	L2
d)	Identify the query processing objectives.	2	L3
e)	List out the properties of Transaction?	3	L1
f)	Define Transaction with an example.	3	L1
g)	List the types of fault tolerance.	4	L1
h)	Write reliability with an example.	4	L2
i)	Define inheritance with an example.	5	L2
j)	Define persistence of objects.	5	L1
Part-B			
Answer All the following questions. (5X10M=50Marks)		CO	Bloom Tx
2	A. Briefly explain distributed data processing. (5M) B. Identify the problem areas of distributed database system.Explain (5M)	1	L2 L3
OR			
3	A. Explain the top down approach design strategy of distributed database design. (5M) B. Draw and explain distributed database management system architecture. (5M)	1	L2 L2
4	A. Interpret the SDD-1 distributed query optimization algorithms in brief. (5M) B. Classify about the query processing layers with an example. (5M)	2	L5 L4
OR			
5	A. Discuss in detail the query decomposition successive steps. (5M) B. Explain about the localization of distributed data? (5M)	2	L3 L2
6	A. Classify the types of transactions with suitable diagrams. (5M) B. Demonstrate the Optimistic concurrency control algorithms. (5M)	3	L3 L4
OR			

7	A. Discuss in detail about deadlock management. (5M) B. Give an overview of time-stamped concurrency control protocol. (5M)	3	L3 L4
8	A. Describe the failures in distributed DBMS. (5M) B. Explain briefly about the database clusters. (5M)	4	L3 L3
	OR		
9	A. Illustrate about local & distributed reliability protocols. (5M) B. Explain briefly about site failures and network partitioning. (5M)	4	L4 L3
10	A. Discuss architectural issues in distributed object DBMS. (5M) B. Compare OODBMS and ORDBMS. (5M)	5	L3 L4
	OR		
11	A. Explain in brief about distributed object storage. (5M) B. Summarize the in detail about persistent programming languages.(5M)	5	L3 L2