Regulation R18 *Subject code: 2O6DB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, February 2024

Data Management Systems

(ECE)

Maximum Marks: 70 Date: 24.02.2024 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 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	Differentiate DDL and DML commands with operation	CO1	L1
2	Define Instances and schemas of database.	CO1	L1
3	Define CROSS PRODUCT operation in Relational algebra?	CO2	L1
4	Write the basic form of SQL query?	CO2	L1
5	What are the advantage of 2NF over l NF?	CO3	L1
6	Define Armstrong axioms for FD's?	CO3	L1
7	Define a checkpoint?	CO4	L1
8	Analyze the use of strict two-phase locking protocol in concurrency control	CO4	L2
9	Define B+ tree index file?	CO5	L1
10	Discuss about data on External storage?	CO5	L2

Part-B

Answer All the following questions. (5X10M=50Marks)			
11	Explain about Database Architecture. [10M]	CO1	L2
	OR		
12	An organization wants to maintain and retrieve data systematically: Sketch and explain the essential components. [10M]	CO1	L2
13	A. Distinguish Relational model from ER model. [5M] B. Explain any four relational algebra operators with syntax. [5M]	CO2	L2
	OR		
14	Explain about Aggregate operators in sql with examples. [10M]	CO2	L2
15	What is normalization? What are the conditions are required for a relation to be in 2NF, 3NF and BCNF explain with examples. [10M]	CO3	L3
	OR		
16	Discuss any one normal form with suitable example. [10M]	CO3	L3
17	Explain in detail about the two-phase locking protocol.[10M]	CO4	L2

	OR		
18	Explain timestamp ordering protocol in concurrency control. [10M]	CO4	L2
19	Demonstrate primary and secondary level indexing with suitable example. [10M]	CO5	L3
	OR		
20	Explain insertion and search operation in B+ trees. [10M]	CO5	L2