



R20 Regulation

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

Subject code: 3P4FC

B.Tech IV Semester Supplementary Examinations, February 2024

Database Management Systems
(Information Technology)

Maximum Marks: 70

Date: 21.02.2024 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		CO	Bloom Tx
All the following questions carry equal marks (10x2M=20 Marks)			
1	Define Transaction management.	CO1	L1
2	Define weak and strong entity sets.	CO1	L1
3	State about SELECT operation in Relational algebra.	CO2	L1
4	Write the basic form of SQL query.	CO2	L1
5	Define Second Normal Form.	CO3	L1
6	List out the Problems related to decompositions.	CO3	L1
7	What is a transaction? What are its four important properties?	CO4	L1
8	Define deadlock.	CO4	L1
9	What is the difference between recovery and atomicity?	CO5	L1
10	Write about data on External storage.	CO5	L1
Part-B			
Answer All the following questions. (5X10M=50Marks)			
11	A. Draw and explain the detailed system architecture of DBMS. (6M) B. What are the advantages of DBMS? (4M)	CO1	L2
	OR		
12	A. Discuss additional features of the ER-Models. (5M) B. Discuss about the Concept Design with the ER Model. (5M)	CO1	L2
13	a) Discuss how can you alter and destroy tables with syntax. (5M) b) Explain basic form of SQL Query with Syntax & Examples (5M)	CO2	L2
	OR		
14	Discuss about different operations in relational algebra with example. (10M)	CO2	L2
15	A. Define functional dependency. Why are some functional dependencies trivial? (5M) B. Illustrate fully functional dependency with example. (5M)	CO3	L2

	OR		
16	A. Illustrate redundancy and the problems that it can cause. (5M) B. Explain the concept scheme refinement in database design. (5M)	CO3	L2
17	A. Discuss the Procedure to test Serializability. (5M) B. How do you implement Atomicity and Durability? Explain. (5M)	CO4	L2
	OR		
18	A. Define Locking. Explain Lock-based Concurrency control with diagram. (5M) B. Discuss in detail about Multiple Granularity. (5M)	CO4	L2
19	A. Discuss about Failure Classification. (5M) B. Explain about remote backup systems. (5M)	CO5	L2
	OR		
20	Explain about different file organizations and compare them. (10M)	CO5	L3