R18 Regulation *Subject code:2O7AA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VII Semester Regular/Supplementary Examinations, November 2022

DATABASE MANAGEMENT SYSTEMS

(Open Elective)

(Civil Engineering)

Maximum Marks: 70 Date:09.12.2022 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)

1 Differentiate the truncate and delete.
2 What is partial key in ER model?
3 Define entity and attribute.
4 Define Relational Model.
5 Define instance and schema.
6 Define First Normal Form.
7 What is serializability in DBMS?
8 When is multiple granularity locking used?
9 What is meant by ISAM?
10 What is clustered index? Give an example.

Part-B

Answer All the following questions. (5X10M=50Marks)

11 A. What is DBMS? Explain architecture of DBMS with diagram. 6M
B. List Database system applications 4M

OR

12 A. Explain the E-R diagram components and notations with their extended features. 5M
B. Write short notes on Data Mining and Information Retrieval.

13 A. What is view in SQL? How is it defined? 5M
B. What are aggregate functions? List the aggregate functions supported by SQL. 5M

OR

14 A. What are NULL values? Explain in detail. 5M
B. Explain the following in SQL with examples. 5M
i) Nested Queries ii) Correlated Queries iii) Triggers

15 A. Explain 2NF and 3NF in detail. 5M
B. Define BCNF. How does it differ from 3NF. 5M

OR

16	A. Why is normalization required? Explain different types of normal forms. B. What are the advantages of normalized relations over the unnormalized relations?	5M
17	A. What are the transaction isolation levels in SQL? B. Explain different recovery techniques used in transaction failure.	5M 2M 8M
	OR	
18	A. What are the ACID properties. B. Explain different transaction states.	5M 5M
19	A. Explain about tertiary storage media in detail. B. Explain in detail insertion methods B+ tree index files with example.	10M
	OR	
20	A. Define hash-table overflow. B. Explain static, extendable and linear hashing techniques briefly.	4M 6M