



R18 Regulation

Subject code: 2P4ED

# TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

**B.Tech IV Semester Supplementary Examinations, September 2023**

## Database Management System

(CSE)

**Maximum Marks: 70**

Date: 19.09.2023 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

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 What are the types of languages a database system provides? Explain.
- 2 Define the terms Entity set, Relationship set?
- 3 What are stored and derived attributes?
- 4 List the disadvantages of relational database system
- 5 What are the parts of basic SQL query?
- 6 What is super key?
- 7 Define a Transaction? List the properties of transaction.
- 8 Define Two Phase Commit protocol?
- 9 What is linear hashing?
- 10 What is and index on file of records?

### Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Describe relational databases, how they have been used in the past, and how they are used currently to implement solutions in technology. (10M)  
OR
- 12 Explain additional features of ER Model? (10M)
- 13 Define all variations of join operation. Why is the join operation given special attention? (10M)  
OR
- 14 Describe briefly a) Entity b) attribute c) Primary key d) foreign key (10M)
- 15 Write short notes on difference, union, rename, Cartesian product in relational algebra. (10M)  
OR
- 16 Explain different normal forms based on functional dependencies? (10M)
- 17 Discuss in detail validation-based protocols. (10M)  
OR
- 18 Explain in detail Storage structure. (10M)
- 19 Discuss in detail about multiple granularity. (10M)  
OR
- 20 Write in detail about index data structures? (10M)

