



Regulation R18

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

Subject code: 206DB

B.Tech VI Semester Supplementary Examinations, June/July 2023

Database Management Systems

(ECE)

Maximum Marks: 70

Date:03.07.2023 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 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 List the advantages of DBMS?
- 2 Discuss about Data Manipulation Language?
- 3 Define UNION operation in Relational algebra?
- 4 Discuss about trigger?
- 5 Define Third Normal Form?
- 6 Discuss Normalization?
- 7 Define a Transaction?
- 8 List the properties of transaction?
- 9 Discuss about primary indexes?
- 10 Define ISAM?

Part-B

Answer All the following questions.

(10MX 5=50Marks)

- 11 Name the main steps in the Database design. What is the goal of each step? In which steps is the ER model mainly used? [10]  
OR
- 12 Discuss in detail Views and also Creating, Altering, Destroying of Views. [10]
- 13 Discuss about Domain Relational Calculus? Write and explain a query in DRC to Find the names of sailors who have reserved boat 103. [10]  
OR
- 14 Explain about Selection, Projection, Rename, division and Cartesian product operations in relational algebra? [10]
- 15 Explain BCNF. What are the steps to be followed to convert a relation in 3NF to BCNF? [10]  
OR
- 16 Determine the closer of the following set of functional dependencies for a relational scheme R(A,B,C,D) and FDs {AB → C, C → D, D → A}. List out the candidate keys of R. [10]
- 17 Explain in detail about Lock-Based Protocols? [10]  
OR
- 18 Explain in detail about Serializability? [10]
- 19 Explain about Hash based Indexing and Tree based Indexing? [10]  
OR
- 20 Explain B+ trees? Discuss about this Dynamic Index Structure? [10]