



R20 Regulation

Subject code: 3P3ED

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech III Semester Supplementary Examinations, December 2024

DATABASE MANAGEMENT SYSTEM

(Common to CSE, CSE (AI & ML) & CSE (DS))

Maximum Marks: 70

Date:09.12.2024

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	Define DBMS.	1	L1
2	Describe the three levels of data abstraction.	1	L1
3	What is Relational Algebra?	2	L1
4	What is meant by degree of relationship set?	2	L1
5	Define trivial dependencies?	3	L1
6	What is 2NF?	3	L1
7	Discuss the Procedure to test Serializability?	4	L1
8	Explain about different types of locks?	4	L1
9	What is clustered index?	5	L1
10	What is the order of B+ tree?	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		CO	Bloom Tx
11	Describe in detail about types of Database Languages. [10M]	1	L2
OR			
12	Illustrate Database design in detail. [10M]	1	L2
13	Classify various operations in Relational Algebra with example. [10M]	2	L2
OR			
14	Interpret a) Entity b) attribute c) Primary key d) foreign key e) Super Key [2M+2M+2M+2M+2M]	2	L2
15	Define functional dependency? Distinguish lossy vs lossless decomposition with example [10M]	3	L2
OR			
16	Explain 1NF, 2NF,3NF based on functional dependencies? [10M]	3	L2

17	Discuss in detail Multiple Granularity? [10M]	4	L2
	OR		
18	Illustrate about Remote Backup systems? [10M]	4	L2
19	Write in detail about index data structures? [10M]	5	L2
	OR		
20	What is Extendible hashing? Interpret how does it handle insert and delete operations with an example. [10M]	5	L2