



B.Tech IV Semester Supplementary Examinations, July 2022
Database Management Systems
(Information Technology)

Maximum Marks: 70

Date:26.07.2022 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.
 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?
- 2 Explain levels of data abstraction.
- 3 Explain two types of participation constraints?
- 4 What is meant by degree of relationship set?
- 5 Define functional dependencies.
- 6 What is super key?
- 7 Define a Transaction? List the properties of transaction.
- 8 Discuss recoverable schedules?
- 9 What is clustered index?
- 10 What is the order of B+ tree?

Part-B

Answer All the following questions.

(10M X 5=50Marks)

- 11 Describe relational databases, how they have been used in the past, and how they are used currently to implement solutions in technology. [10]
OR
- 12 Draw an Entity Relationship (ER) for railway reservation system. [10]
- 13 Apply relational algebra and set theory that are supported in the relational model. [10]
OR
- 14 Explain about different types of Relational calculus. [10]
- 15 What is functional dependency? Explain computing closures of F with suitable examples. [10]
OR
- 16 Explain different Normal forms based on functional dependencies. [10]
- 17 Describe Timestamp based locking protocols? [10]
OR
- 18 Explain Buffer Management? [10]
- 19 Write in detail about index data structures? [10]
OR
- 20 Why are trees-structured indexes good for searches especially range selections? [10]