



R19

Code No: 862AC

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

MCA II Semester Examinations, July/August - 2021

DATABASE MANAGEMENT SYSTEMS

Time: 3 Hours

Max.Marks:75

**Answer any five questions
All questions carry equal marks**

- 1.a) Explain the Database system structure.
- b) Discuss conceptual database design for large enterprises. [7+8]
- 2.a) Explain the role of file manager and buffer manager in DBMS.
- b) Describe the components of query processor and query evaluation engine with necessary diagram. [7+8]
- 3.a) What is a view? Discuss its role in Database security.
- b) Explain in detail the Division operation in Relational Algebra. [7+8]
- 4.a) What is relational database. Illustrate Tuple relational calculus.
- b) Explain domain relational calculus. [7+8]
- 5.a) Compare Nested query and correlated query. Discuss suitable examples.
- b) What is a Trigger? How do they enforce Integrity constraints? [7+8]
- 6.a) Describe Multi-valued dependencies with examples.
- b) Explain the various problems caused by Redundancy. [7+8]
- 7.a) Explain the concept of log based recovery.
- b) Explain advanced recovery systems. [7+8]
- 8.a) What is an index? Differentiate between Sparse and dense indices.
- b) Make a comparison of Sorted file organization. [7+8]

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