



MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act, 1956

II B.Tech II Sem Regular End Examination, July 2022

Database Management Systems

(CSM)

Time: 3 Hours.

Max. Marks: 70

Note: 1. Question paper consists: Part-A and Part-B.

2. In Part - A, answer all questions which carries 20 marks.

3. In Part - B, answer any one question from each unit.

Each question carries 10 marks and may have a, b as sub questions.

PART- A

(10*2 Marks = 20 Marks)

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|-------|---|----|-----|-----|
| 1. a) | What is data model? | 2M | CO1 | BL1 |
| b) | Define aggregation. | 2M | CO1 | BL1 |
| c) | Identify integrity constraints. | 2M | CO2 | BL1 |
| d) | What is Cardinality Ratio? | 2M | CO2 | BL1 |
| e) | State advantages of Normal forms. | 2M | CO3 | BL1 |
| f) | Explain simple query structure in SQL. | 2M | CO3 | BL4 |
| g) | Define checking point. | 2M | CO4 | BL1 |
| h) | What is starvation? | 2M | CO4 | BL1 |
| i) | Identify different indexing techniques. | 2M | CO5 | BL1 |
| j) | Define hashing. | 2M | CO5 | BL1 |

PART- B

(10*5 Marks = 50 Marks)

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|------|--|----|-----|-----|
| 2 a) | What is DBA? Explain its role in detail. | 5M | CO1 | BL4 |
| b) | Explain ER diagram and relationships with example. | 5M | CO1 | BL4 |

OR

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|------|---|-----|-----|-----|
| 3 | Outline DBMS architecture with a neat sketch. | 10M | CO1 | BL4 |
| 4 a) | Explain join operations on relations. | 5M | CO2 | BL4 |
| b) | Give the structure of relational model. | 5M | CO2 | BL1 |

OR

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|---|--|-----|-----|----|
| 5 | Explain syntax and semantics of Tuple Relational Calculus. | 10M | CO2 | B4 |
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- 6 a) Explain set manipulators in SQL. 5M C03 BL4
b) Explain inner and outer join operations in SQL. 5M C03 BL4
- OR**
- 7 Explain third normal form and BCNF with suitable examples. 10M C03 BL4
- 8 a) Demonstrate ACID properties of transaction. 5M C04 BL6
b) Explain shadow copy scheme in detail. 5M C04 BL4
- OR**
- 9 Analyze deadlock recovery techniques. 10M C04 BL4
- 10 a) Compare clustered Vs Un clustered indexing. 5M C05 BL2
b) Explain linear hashing in detail. 5M C05 BL4
- OR**
- 11 Identify and explain the file organization techniques. 10M C05 BL4

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