**CODE: A0515**

**MR 20**

**MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)**

II B.Tech II Semester End Examinations (Regular), July / August – 2021

# Subject: Data Base Management Systems Branch: CSE

# Time: 3 hours Max. Marks: 70

**Answer all questions ALL Questions carries equal marks**

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| **Q. No.** | **Questions** | **Bloom’s Taxonomy Level** | **CO’s** | **Marks** |
|  | What is a data model? Explain in detail about different data models used in database management systems? | Understanding | 1 | 14 |
|  | **OR** |  |  |  |
|  | Classify various features of the ER-Models? How to represent the strong entity and week entity set through ER-diagrams | Understanding | 1 | 14 |
|  | | | | |
|  | Discuss about Nested and Correlated queries and core with an example. | Remembering | 2 | 14 |
|  | **OR** |  |  |  |
|  | What is relational algebra? Explain the different types of relational algebra operations in detail with suitable example? | Remembering | 2 | 14 |
|  | | | | |
|  | What is decomposition and how does it address redundancy? What problem may be caused by the use of decompositions? | Understanding | 3 | 14 |
|  | **OR** |  |  |  |
|  | Explain in detail about 3NF and BCNF. List the differences between 3NF and BCNF | Understanding | 3 | 14 |
|  | | | | |
|  | Explain ACID properties of transaction management and Illustratethem through examples? | Understanding | 4 | 7 |
|  | **OR** |  |  |  |
|  | Define locking protocol. Explain 2PL and strict 2PL with suitable example. | Understanding | 4 | 14 |
|  | | | | |
|  | What is file organization? Explain in detail about types of file organizations. | Understanding | 5 | 14 |
|  | **OR** |  |  |  |
|  | Explain in detail about static hashing.Explain the limitations of static hashing. Explain how this is overcome in dynamic hashing. | Understanding | 5 | 14 |

**Signature of Faculty(s) HOD**