**MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)**

**II B.Tech II Semester (MR20-2020-21Batch) Mid Term Examinations-II, July-2022**

Subject Code & Name: - A0515 & **DBMS** Max. Marks: **25M**

Branch: **CSE**  Time: **90 Mins** Date:

**Answer ALL the Questions**

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| **S**  **NO.** | **Questions** | **Marks** | **BT Level** | **CO** |
|  | **Module-3** |  |  |  |
| **1** | Define Normalization? List out the problems caused by redundancy and explain them briefly. Illustrate fourth normal form with a suitable example | 5 | 2 | 3 |
| **2** | Define functional dependency? Briefly explain about first normal form by taking suitable table. | 5 | 2 | 3 |
| **3** | What is meant by multi-valued dependency? Explain with suitable example. | 5 | 2 | 3 |
| **4** | Explain in detail about 3NF and BCNF. List the differences between 3NF and BCNF | 5 | 2 | 3 |

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| **S**  **NO.** | **Questions** | **Marks** | **BT Level** | **CO** |
|  | **Module-4** |  |  |  |
| **1** | Discuss the ACID properties. Illustrate them through examples? | 5 | 2 | 4 |
| **2** | Demonstrate about Transaction Management and different States of Transaction. | 5 | 2 | 4 |
| **3** | Explain about conflict serializability and view serializability with suitable example. | 5 | 3 | 4 |
| **4** | Define the term Lock. Explain various types of locks along with their compatibility functions. | 5 | 2 | 4 |
| **5** | Explain concurrency control with Time-Stamp based protocols with suitable example? | 5 | 2 | 4 |
| **6** | a. Explain the various concurrency control problems with an examples.  b. What is Transaction? Explain the ACID properties of a transaction | 5 | 3 | 4 |
| **7** | Define the term Lock. Explain various types of locks along with their compatibility functions. | 5 | 2 | 4 |
| **8** | Discuss in detail about the various locking methods of concurrency control | 5 | 2 | 4 |

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| **S**  **NO.** | **Questions** | **Marks** | **BT Level** | **CO** |
|  | **Module-5** |  |  |  |
| **1** | Summarize in detail Storage System with suitable example | 5 | 3 | 5 |
| **2** | What is file organization? Explain in detail about types of file organizations. | 5 | 2 | 5 |
| **3** | Explain sparse and dense indices in detail with examples. | 5 | 2 | 5 |
| **4** | Write in detail about Indexing in DBMS. | 5 | 2 | 5 |
| **5** | Find the major differences among primary, secondary and clustering indexes? | 5 | 2 | 5 |
| **6** | Find the major differences among primary, secondary and clustering indexes? | 5 | 2 | 5 |
| **7** | Discussion detail about Linear Hashing with pros and cons. | 5 | 2 | 5 |
| **8** | Explain about B+ Tree and the structure of B+ Tree in detail with suitable examples. | 5 | 2 | 5 |

**Signature of the Faculty Signature of the HoD**