

Code No: **R20A0551****MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****II B.Tech II Semester Regular/Supplementary Examinations, July 2023****Introduction to DBMS****(EEE, ME, ECE & AE)**

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| <b>Roll No</b> |  |  |  |  |  |  |  |  |  |
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**Time: 3 hours****Max. Marks: 70**

**Note:** This question paper Consists of 5 Sections. Answer **FIVE** Questions, Choosing **ONE** Question from each SECTION and each Question carries 14 marks.

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**SECTION-I****Marks**

- 1      **A**      Compare and Contrast file Systems with database systems?      **[7M]**  
        **B**      Explain different types of database users and write the functions of DBA?      **[7M]**

OR

- 2      **A**      Discuss about different types of Data models?      **[7M]**  
        **B**      Explain Three schema Architecture of a database      **[7M]**

**SECTION-II**

- 3      **A**      What is Super key? Explain with example      **[7M]**  
        **B**      Define view? Explain views with examples?      **[7M]**

OR

- 4      **A**      Demonstrate Foreign key constraints with suitable examples      **[7M]**  
        **B**      Explain Integrity constraints with examples      **[7M]**

**SECTION-III**

- 5      **A**      Describe various types of outer joins with examples      **[7M]**  
        **B**      Explain the set operations of SQL?      **[7M]**

OR

- 6      **A**      List and explain the aggregate functions supported by SQL with examples      **[7M]**  
        **B**      Demonstrate various types of E-R Diagram Notations.      **[7M]**

**SECTION-IV**

- 7      **A**      Describe the concept of functional dependency and explain computation of closure of F.      **[7M]**  
        **B**      Discuss ACID properties with examples      **[7M]**

OR

- 8      **A**      Explain problems caused by Redundancy with examples      **[7M]**  
        **B**      i.      Define Third normal form and Transitive dependency.      **[7M]**  
              ii.      Define Second normal form and Partial dependency.

**SECTION-V**

- 9      **A**      Explain conflict serializability with example      **[7M]**  
        **B**      Describe Timestamp based locking protocols?      **[7M]**

OR

- 10      **A**      Sketch the transaction state and explain in detail.      **[7M]**  
        **B**      What is a transaction? Explain desirable properties of transactions.      **[7M]**

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