

Code No: R17A0551**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****II B.Tech II Semester Supplementary Examinations, April 2023****Database Systems****(ME & ECE)**

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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.

SECTION-I

- 1 a) Describe the Architecture of a database? [10M]
b) Mention the users of Database in detail? [4M]

OR

- 2 a) List and write about DBMS Languages? [7M]
b) Write about the role of DBA? [7M]

SECTION-II

- 3 Define and Give example for the following?
a) Primary Key [4M]
b) Super key [3M]
c) Candidate key [4M]
d) Attribute [3M]

OR

- 4 a) What is a Trigger? Discuss triggers in detail? [7M]
b) Define Schema? Explain Representation of Various ER Schemas. [7M]

SECTION-III

- 5 a) Write about the following set operations? [9M]
i) UNION, ii) INTERSECT, and iii) EXCEPT
b) Write the query to create a table [5M]

OR

- 6 a) Explain aggregate functions with examples? [9M]
b) Discuss NULL Values in SQL? [5M]

SECTION-IV

- 7 a) Explain lossless-join decomposition? [7M]
b) Discuss Boyce/Codd normal form with example? [7M]

OR

- 8 a) Write about Multi-valued dependencies & Join dependencies? [7M]
b) Explain 2NF and 3NF with examples? [7M]

SECTION-V

- 9 a) Explain Serializability with example? [7M]
b) Write about implementation of isolation? [7M]

OR

- 10 a) Explain Testing for serializability in topological sorting? [7M]
b) Write and explain transaction concept with example? [7M]
