

R18

Code No: 154AM

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech II Year II Semester Examinations, August/September - 2022

DATABASE MANAGEMENT SYSTEMS

(Common to CSE, IT, ECM, CSBS, CSIT, ITE, CSE(AIML), CSE(DS))

Time: 3 Hours

Max.Marks:75

**Answer any five questions
All questions carry equal marks**

- 1.a) Draw and explain the structure of a DBMS.
- b) Explain generalization and specialization concepts with an example. [7+8]
- 2.a) What is ER model? Explain the basic symbols used for entities, attributes and relationships.
- b) What is an attribute? Explain various types of attributes with examples. [9+6]
- 3.a) Explain integrity constraints over relations.
- b) How to alter, destroy tables and views? Give example queries. [7+8]
- 4.a) Give a brief note on views.
- b) Explain fundamental operations in relational algebra with examples. [8+7]
5. What is meant by normalization? Explain in detail various normal forms with an example. [15]
6. Explain the following with any example queries.
 - a) Set operations.
 - b) Aggregate operations. [7+8]
- 7.a) How to test serializability of a schedule? Explain with an example.
- b) Explain log-based recovery protocol. [8+7]
- 8.a) What is the purpose of indexing in DBMS? Explain secondary indexing with suitable diagram.
- b) What is meant by file organization? Explain in brief about Indexed Sequential Access Method (ISAM). [8+7]

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