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
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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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