

Code No: 134AP**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech II Year II Semester Examinations, August/September - 2022****DATABASE MANAGEMENT SYSTEMS****(Common to CSE, IT)****Time: 3 Hours****Max.Marks:75**

Answer any five questions
All questions carry equal marks

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- 1.a) What is DBMS? Differentiate between file systems and DBMS.
b) Explain in brief about DDL and DML. [8+7]
- 2.a) Discuss the additional features of ER model.
b) Explain integrity constraints over relations. [9+6]
3. Comment on the expressive power of
a) Domain relational calculus
b) Relational algebra. [8+7]
- 4.a) Explain aggregate operators with example queries.
b) What is null attribute? Explain its purpose. [8+7]
- 5.a) What is decomposition? Discuss the problems related to decomposition.
b) Explain third normal form and BCNF. [6+9]
- 6.a) What is meant by schema refinement? Explain schema refinement in database design.
b) Explain partial and transitive dependencies with an example. [8+7]
- 7.a) What is lock? Explain various types of locks with an example.
b) Discuss the purpose of using remote backup systems. [7+8]
8. Explain the following:
a) ISAM
b) File organization and indexing. [8+7]

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