

**Code No: 154AM****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech II Year II Semester Examinations, November/December - 2020****DATABASE MANAGEMENT SYSTEMS****(Common to CSE, IT)****Time: 2 Hours****Max. Marks: 75****Answer any Five Questions  
All Questions Carry Equal Marks**

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- 1.a) What is DBMS? List four significant difference between file processing system and a DBMS?
- b) What is E-R model? Draw an E-R Diagram for any Banking enterprise system. [6+9]
- 2.a) Explain about outer join operation in relational algebra.
- b) Explain about domain relational calculus with example. [7+8]
- 3.a) Explain the following Operators in SQL with examples  
i) SOME ii) IN iii) EXCEPT iv) EXISTS
- b) Explain various DML functions in SQL with examples. [8+7]
4. Explain shadow paging recovery scheme for recovering the data base? [15]
5. Explain deletion and insertion operations in linear hashing with examples. [15]
- 6.a) Explain about various database users and administrators in DBMS.
- b) Draw an ER-Diagram for Weak entity set and Strong entity set with example. [7+8]
- 7.a) Explain modification of the database operations in relational algebra with example.
- b) Explain about domain relational calculus with example. [8+7]
8. What is normalization? Explain 4NF and 5NF Normal forms with example. [15]

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