

Code No: 114CQ**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B.Tech II Year II Semester Examinations, May - 2019****DATABASE MANAGEMENT SYSTEMS****(Common to CSE, IT)****Time: 3 Hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit.

Each question carries 10 marks and may have a, b, c as sub questions.

PART - A**(25 Marks)**

- 1.a) What is meant by data abstraction? [2]
- b) Define the terms entity and attributes. [3]
- c) Explain the selection and projection operations. [2]
- d) Write brief notes on NULL values. [3]
- e) Explain first normal form? [2]
- f) Write short notes on inclusion dependencies. [3]
- g) What is meant by atomicity? [2]
- h) What is meant by recoverability? [3]
- i) What are the clustered indexes? [2]
- j) What is meant by linear hashing? [3]

PART - B**(50 Marks)**

2. Discuss about querying relational data. [10]
OR
3. Describe the history of database systems. [10]
4. Explain the AND, OR and NOT logical connectives with examples. [10]
OR
5. Discuss about complex integrity constraints in SQL. [10]
6. Explain about dependency preserving decomposition. [10]
OR
7. Explain third normal form and fifth normal form. [10]
8. Discuss about time stamp based protocols. [10]
OR
9. Discuss about remote backup systems. [10]
10. Explain about Dynamic index structure. [10]
OR
11. Discuss about static hashing and extendable hashing. [10]

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