

R17**Code No: 845AD****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****MCA V Semester Examinations, February - 2021****DISTRIBUTED DATABASES****Time: 2 hours****Max.Marks:75**

Answer any five questions
All questions carry equal marks

1. Explain the reference architecture for distributed databases. [15]
- 2.a) What is the criteria for checking the correctness of fragmentation? Explain.
b) What are integrity constraints? Explain with examples. [7+8]
3. Explain global query optimization using distributed data manager method. [15]
- 4.a) How fragmented relation simplification is done? Explain.
b) Explain about semi-join reduction in distributed databases. [8+7]
5. Prove that 2-phase locking is a correct distributed concurrency control method. [15]
- 6.a) Explain about log-write-ahead protocol.
b) State on the validity of serializability as a correctness criterion. [7+8]
- 7.a) Explain quorum-based commitment protocols.
b) With examples, explain how to detect inconsistencies in distributed databases. [7+8]
- 8.a) Write about detection based cache consistency algorithms.
b) Explain attribute-to-entity transformation with an example. [8+7]

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