R17

Code No: 845AD

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA V Semester Examinations, February - 2022
DISTRIBUTED DATABASES

Time: 3 Hours   Max.Marks:75

Answer any five questions
All questions carry equal marks
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1.   Explain with examples various types of data fragmentation.   [15]

2.a)   Describe the reference architecture of distributed database systems.
  b)   What are integrity constraints explain in detail.   [8+7]

3.a)   Illustrate with examples query optimization of aggregate functions and parametric functions.
  b)   Discuss the process of query optimization.   [8+7]

4.a)   What is query translation? Explain equivalence query transformation.
  b)   How a global query is transformed into fragment query?   [8+7]

5.   Define dead lock? Discuss in detail various control organizations for distributed dead lock detection.   [15]

6.   What is a correct distributed concurrency control mechanism? List some correct distributed concurrency control mechanism. Prove that time stamp based protocol is correct. [15]

7.a)   What is check point? Explain its roles in recovery procedures.
  b)   List out optimistic methods for distributed concurrency? Explain them in brief.   [7+8]

8.   Write a short note on:
         a) Pointer swizzling
        b) Object Migration.   [7+8]

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