IV B.Tech II Semester Regular/Supplementary Examinations,May 2010
DISTRIBUTED DATABASES
Computer Science And Engineering

Time: 3 hours   Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
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1. Write a short note on the following:

    (a) Centralized catalogs

    (b) Fully replicated catalogs

    (c) Local catalogs

    (d) Object Naming with Site Autonomy.   [2+2+4+8]

2. Discuss the following:

    (a) Fragmentation transparency

    (b) Control of redundancy

    (c) Referential integrity with example

    (d) Semi-join with an example.   [4+4+4+4]

3. Explain the following terms:

    (a) Cost function,

    (b) Path expressions,

    (c) Rewriting and algebraic optimization.   [5+5+6]

4. Give an example of global schema, fragmentation schema and additional semantic knowledge, and explain how this information can be used for deducing the simplification of a query.   [16]

5. Explain the following:

    (a) Deadlock Detection using centralized and Hierarchical Controllers.

    (b) False deadlocks.   [10+6]

6. Explain the following in detail:

    (a) Object Management Architecture

    (b) COM/OLE and Database Interoperability.   [10+6]

7. (a) Explain about semi-join reduction in DDB.

    (b) Discuss about the distribution of access strategy to different sites. Explain the issues involved and how they are tackled.   [8+8]

8. (a) Discuss the architectural aspects of distributed transactions
   (b) Explain the following:
      i. Multiple copies of the data
      ii. Transaction failures. [8+8]

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