Code No: V3146 **R07** **Set No: 1**

III B.Tech. I Semester Supplementary Examinations, November/December - 2012

DISTRIBUTED DATA BASE

(Information Technology)

Time: 3 Hours **Max Marks: 80**

Answer any FIVE Questions

All Questions carry equal marks

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1. a) Distinguish between distributed database and centralized database.
   b) Explain about the reference architecture of distributed database.

2. Explain about the algebra of qualified relations.

3. a) Discuss about the problems in query optimization.
   b) What is optimization graph? How is it better than operator tree model? Explain.

4. Explain the 2-phase commitment protocol. Also discuss the merits and drawbacks of the same.

5. a) Explain the distributed deadlock prevention mechanism.
   b) Explain how validation is done using only transaction timestamps.

6. a) What is cold restart? Explain.
   b) Explain the process of determining the consistent view of networks.

7. a) Explain the transaction management in object DBMSs.
   b) Explain about cache consistency object management.

8. a) What is database integration? Explain.
   b) Briefly explain PUSH based technologies.

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Code No: V3146 **R07** **Set No: 2**

III B.Tech. I Semester Supplementary Examinations, November/December - 2012

DISTRIBUTED DATA BASE

(Information Technology)

Time: 3 Hours **Max Marks: 80**

Answer any FIVE Questions

All Questions carry equal marks

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1. a) Explain about the reference architecture of distributed database.
   b) Discuss about the integrity constrains in distributed databases.

2. Explain the equivalence transformations for the relation algebra with suitable examples.

3. a) List out the objectives of query optimization.
   b) Give the estimating profile of the results of selection and projection algebraic operations.

4. Explain about the architectural aspects of distributed transactions.

5. a) Explain the concepts of serializability in distributed and centralized databases.
   b) How are deadlocks detected using centralized or hierarchal controllers?

6. a) What are the problems that arise during the design of reliable distributed database systems? Explain.
   b) Discuss the process of detection and resolution of inconsistency.

7. a) What is object migration? Explain.
   b) Explain the object query processing in brief.

8. a) Explain about query processing layers in distributed multi DBMSs.
   b) How is multi database recovered? Explain.

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Code No: V3146 **R07** **Set No: 3**

III B.Tech. I Semester Supplementary Examinations, November/December - 2012

DISTRIBUTED DATA BASE

(Information Technology)

Time: 3 Hours **Max Marks: 80**

Answer any FIVE Questions

All Questions carry equal marks

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1. Explain the different types of data fragmentations with appropriate examples.

2. a) What is operator graph? Explain how common subexpressions are determined.
   b) How is distributed grouping function evaluated? Explain.

3. a) What is the effect of commuting joins and unions? Explain.
   b) How are reducers used to reduce relations? Explain.

4. a)What are communication failures in distributed databases? Explain.
   b) How is concurrency control based on locking in distributed database systems performed? Explain.

5. a) Explain about the timestamps in a distributed databases.
   b) Explain the distributed deadlock detection mechanism.

6. a) What is cold restart? Explain.
   b) Discuss the process of detection and resolution of inconsistency.

7. a) Explain the client/server architecture.
   b) Discuss about query processing issues.

8. a) What is database interoperability? Explain.
   b) How is multi database concurrency control performed? Explain.

Code No: V3146 **R07** **Set No: 4**

III B.Tech. I Semester Supplementary Examinations, November/December - 2012

DISTRIBUTED DATA BASE

(Information Technology)

Time: 3 Hours **Max Marks: 80**

Answer any FIVE Questions

All Questions carry equal marks

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1. a) What are the principles of distributed databases? Explain.
   b) Discuss about the integrity constraints in distributed databases.

2. a) What is operator tree of a query? Explain
   b) How is simplification of joins between horizontally fragmented relations is performed? Explain.

3. Give the estimating profile of the results of group-by, union, join, and semi join algebraic operations.

4. a) Discuss the golas of transaction management.
   b) How is recovery of distributed transaction performed? Explain.

5. Discuss about various optimistic methods for distributed concurrency control.

6. What are non blocking commitment protocols? Explain any one in detail.

7. a) What is pointer swizzling? Explain.
   b) Explain object query processing.

8. a) Discuss scheme translations and data base integration.
   b) What is database interoperability? Explain

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