## (CSE/IT 423)

IV/IV B.Tech. DEGREE EXAMINATION, APRIL 2005.

Second Semester

# ADVANCED DATABASE MANAGEMENT SYSTEMS

Time: Three hours

Maximum: 70 marks

Answer Question No. 1 compulsorily.

 $(1 \times 14 = 14)$ 

Answer ONE question from each Unit.

 $(4 \times 14 = 56)$ 

All questions carry equal marks.

- 1. (a) What are the advantages of query optimization?
  - (b) Define Materialization.
  - (c) What is query processing plan?
  - (d) What is location transparency?
- (e) What are advantages of distributed computing system?

- (f) What is replication transparency?
- (g) What is horizontal fragmentation?
- (h) What is oracle?
- (i) What is DDL? Give its commands.
- (j) What is DCL? Give its commands.
- (k) What is data warehouse?
- (l) What is meant by flexible reporting?
- (m) What is a special schedule?
- (n) What is difference between integrity and security?

#### UNITI

2. (a) What is meant by term heuristic optimization? Discuss the main heuristics that are applied during query optimization.

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(b) Discuss the time stamp ordering protocol for concurrency control. How does strict time stamp ordering differ from basic time stamp ordering?

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### UNIT II

- 3. (a) Explain the features of distributed data bases.
- (b) Describe the two-phase commit protocol for multi-database transactions.

Or

- (c) Explain the components of distributed database management system (DDBMS's).
- (d) What is meant by transaction rollback? Explain.

### UNIT III

- 4. (a) What are the origins of the object oriented approach.
- (b) Discuss the concept of polymorphism and operator overloading.

Or

- (c) Write notes on:
  - (i) Inheritance
  - (ii) Data Definition Language (DDL)
  - (iii) Relational database.

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### UNIT IV

- 5. (a) Explain the characteristics of warehouse, devide them into functionality of warehouse and advantages users derive from it.
- (b) List the difficulties in implementing a data ware house.

Or

- (c) What are the goals or tasks that data mining attempts to facilitate?
- (d) What is data mining? How does data mining technology relate to data warehouse technology?

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