MCA 3rd Semester RELATIONAL DATABASE MANAGEMENT 2006

Time: Three hours maximum: 100marks

PART A Answer all questions (8x5=40 marks)

1. (a) List the advantages of RDBMS. Or (b). What is meant by entity set? Explain with an example

2. (a) Write short notes on tuple relational calculus. Or (b) what is an index? How it is used in RDBMS?

3. (a) Compare data retrieval in network model and hierarchical model. Or (b) Explain the concept based on relational database design with respect to repetition of information.

4. (a) What is view? Whether multiple view updations are applicable in RDBMS? Or (b). Explain about aggregate operators in detail.

5. (a). Explain the anomalies in relation database design. Or (b) Explain the BCNF with examples.

6. (a) Write short notes on snapshots. Or (b). What is RQBE? What is its role in database?

7. (a) Explain the theory of multi-valued dependencies. Or (b) Explain in detail about lossless-join decomposition.

8. (a). What is distributed database? Where it is in high demand? Or (b) Write down the method of providing security to the relational database.

PART B Answer ALL questions (5x12=60 marks)

9. (a) Explain about different keys available in RDBMS and write down the significance each key with an example. Or (b) explain the different access methods and storage structures in RDBMS.

10. (a) Discuss the data modeling concepts in detail. Or (b). What is correlated sub query? Illustrate with an example of a correlated sub query projection and union operation as relational algebra expressions.

11. (a). Explain with example, the different operations in relational algebra. Or (b) Explain the following terms: I) Full functional dependency. II) Temporal Relational model. III) Repetition of information

12. (a) Explain in detail, the various stages involved in compiling a query with a neat diagram. Or (b) describe the security issues and integrity factors regarding database systems.

13. (a) Explain how will you normalize the given table to the third normal form, by assuming your own table. Or (b). Discuss in detail about database administration?