ANNA UNIVERSITY COIMBATORE

B.E. / B.TECH. DEGREE EXAMINATIONS : DECEMBER 2009

REGULATIONS : 2007

FIFTH SEMESTER

070230034 - DATABASE MANAGEMENT SYSTEMS

(COMMON TO CSE / IT)

TIME : 3 Hours   Max.Marks : 100

PART – A

(20 x 2 = 40 MARKS)

ANSWER ALL QUESTIONS

1. What are the disadvantages of file processing system?
2. Distinguish between physical and logical data independence.
3. What are the two data structuring concepts employed in a hierarchical model?
4. State four abstraction concepts used in semantic and ER data models.
5. What is the need to perform normalization of relations?
6. What is functional dependency?
7. Give the syntax for Intersect operation in SQL using an example.
8. What is the constraint specified for BCNF?
9. How are the operations on files grouped?
10. What are volatile and non – volatile storage?
11. Differentiate Search trees with that of B- trees.
12. What are the different types of Join operation in query processing?
13. State the different states of a transaction.
14. List out the reasons for using concurrent execution in a database?
15. What are the recovery techniques that is used in multiple concurrent transactions?

16. Define Timestamp.
17. What are object identity and state the different forms of identity?
18. What is the difference between XML and HTML?
19. Define replication and state its advantages.
20. What is a data warehouse?

PART – B

(5 x 12 = 60 MARKS)

ANSWER ANY FIVE QUESTIONS

21. a What are the sequence of steps involved in the setting up a database for a particular organization?   4

    b Explain the major factors that help derive relational schema from an ER schema   8

22. a What are the different string operations used in SQL?   4

    b State and explain any four the set operations that can be performed using SQL queries. Illustrate with an example.   8

23. a What is transitive dependency? Explain with an example.   4

    b What is normalization? Discuss on 1NF, 2NF and 5NF with suitable examples.   8

24. What are secondary storage devices? Explain parallezing disk access using RAID technology.

25. Elaborate on the Two- Phase locking protocol.

26. a What is recoverable schedule? Why is it desirable?   3

    b State and explain four indexing methods used for spatial data.   9