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B.E / B.Tech (Full Time) DEGREE EXAMINATIONS, APR / MAY 2013

Computer Science and Engineering Branch

Seventh Semester

CS 9038 – DATABASE TUNING

(Regulation 2008)

Time : 3 Hrs.

Answer ALL Questions

Max. Marks : 100

PART-A (10 x 2 = 20 Marks)

1. What is database tuning?
2. Say how data locking affects system performance.
3. With example brief on multi-point queries.
4. Which data structures are suitable for in-memory data?
5. When clustering is better over non-cluster?
6. How do you design your database triggers such that they do not decrease the system performance?
7. What are performance monitor? How do they help in database tuning?
8. Write a note on Privilege and Rechability
9. What is the significance of access plans in tuning?
10. Mention any four tuners of Oracle.

PART – B (5 X 16 = 80 Marks)

11. i) Explain the advantages and disadvantages of composite indexes with suitable examples. [10]
- ii) Illustrate the priority inversion in transaction execution. [6]
12. a) Explain the tuning of the major component of the DB system – the logging and recovery subsystem. [16]
- OR
- b) Discuss in detail the locking and concurrency control in view of database tuning. [16]
- 13.a. Explain how the Application Interface can be tuned so as to improve the system performance. [16]

OR

13.b i) Explain with examples, how the rewriting of nested queries help in database tuning. [8]

b ii) Explain the uses and performance of triggers with suitable examples. [8]

14.a. Illustrate how the cause-effect patterns in the producer-consumer chain of DBMS resources help in troubleshooting? [16]

OR

14.b. Discuss on the tools used to gather information regarding the performance of a database system. [16]

15. a. i) With an algorithm explain how an optimal chopping can be done for a transaction T_i . [8]

a.ii) what are performance indicators? List and explain how the indicators are to be measured for finding suspicious queries. [8]

OR

15. b. i) Explain the query structure operators with neat examples. [8]

b.ii) Discuss in detail on time series databases. [8]
