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Name:

Reg.No.



SIXTH SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2010

CS / IT 04 602 - DATABASE MANAGEMENT SYSTEM
(2004 ADMISSION)

Time : 3 Hours

Maximum: 100 Marks

PART - A

- I.
- a) What are the responsibilities of the database designers?
 - b) Differentiate between an attribute and a value set.
 - c) What are the main goals of the RAID technology?
 - d) How does B tree differ from B+ tree? Why is a B+ tree usually preferred as an access structure to a data file?
 - e) What undesirable dependencies are avoided when a relation is in 2NF?
 - f) What is database design tuning?
 - g) What for the system log is used? What are the typical kinds of records in a system log?
 - h) What is meant by cascading rollback?

(8×5 = 40)

PART -B

- II. a) Explain the advantages of using DBMS.
b) Write about Database languages and interfaces.
(or)
a) Construct ER diagram for a university database.
b) Discuss about the subclasses, super classes and inheritance.
- III. a) Explain the hashing techniques in detail.
(or)
b) Describe the structure of B+ tree. How insertion and search operations are performed on B+ tree?
- IV. a) What does the term *unnormalized relation* refer to? How did the normal forms develop historically from first normal form up to Boyce-Codd normal form?
(Or)
b) Explain about Joins, Selection, Projection and Division with examples.
- V. a) i) Explain the different forms of Serializability.
ii) Explain the ARIES recovery algorithm.
(or)
b) Explain the following concurrency control:
i) Lock based protocol
ii) Time stamp based protocol

(15×4 = 60)
