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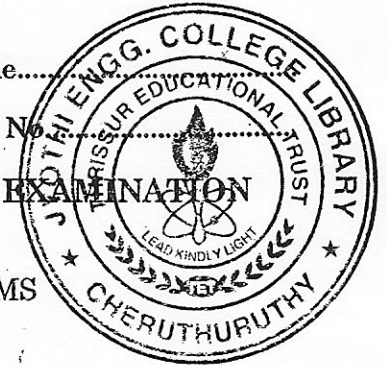
SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION JUNE 2010

CS/IT 04 602—DATABASE MANAGEMENT SYSTEMS

(2004 Admissions)

Time : Three Hours

Maximum : 100 Marks

Part A
Answer all questions.

1. What is data independence ? What are the two types of data independence ?
2. Explain the advantages of using DBMS.
3. Explain the RAID levels briefly.
4. What is heap file ?
5. What are multivalued dependencies ?
6. What is view in SQL ? What is the use of it ?
7. What is recoverable schedule ?
8. Discuss about granting and revoking privileges to users.

(8 × 5 = 40 marks)

Part B

9. Explain DBMS system structure with neat sketch. (15 marks)

Or

10. (i) Construct an ER diagram for hospital with a set of patients and Medical doctors. Associate with each patient log of the various tests and examinations conducted. (8 marks)

 (ii) Explain the difference between strong and weak entity set with example. (7 marks)

11. Explain the various types of Ordered Indexing with examples. (15 marks)

Or

12. What are the different types of storage media ? Explain with a diagram the block storage operations. (15 marks)

13. (i) What is normalization ? Explain the various normalization techniques with suitable example. (10 marks)

 (ii) Give the comparison between BCNF and 3NF. (5 marks)

Or

14. (i) Explain the set difference operation in relational algebra. (8 marks)

 (ii) Discuss with examples the aggregate functions offered by SQL. (7 marks)

15. What is serializability ? Explain the types of serializability in detail. (15 marks)

Or

16. (i) Explain the ARIES recovery algorithm. (7 marks)

 (ii) Write short notes on statistical database security. (8 marks)

(4 × 15 = 60 marks)