

III B.Tech II Semester Supplementary Examinations, April/May 2005
DATABASE MANAGEMENT SYSTEMS
(Computer Science & Engineering)

Time: 3 hours

Max Marks: 70

Answer any FIVE Questions
All Questions carry equal marks

1. (a) What are the main differences between a file processing system and DBMS?
(b) Explain the main functions of a database administrator.
2. (a) Explain in detail about the primary key, candidate key and super key.
(b) Construct an E-R diagram for a car-insurance company that has a set of customers, each of whom owns one or more cars. Each car has associated with?
3. (a) Explain the difference between physical and logical data independence.
(b) Write in detail about the database languages.
4. Explain the following in detail:
 - (a) Validation techniques
 - (b) Security and integrity
5. Use the bank example, write relational algebra queries to find out how many accounts are held by more than two customers in the following ways.
 - (a) Using an aggregate function
 - (b) Without using any aggregate functions.
6. Write short notes on the following:
 - (a) Static and dynamic hash functions
 - (b) Triggers
7. (a) Explain why 4NF is a normal form more desirable than is BCNF?
(b) Write short notes on multi valued dependencies.
8. Write in detail about the following:
 - (a) B⁺tree
 - (b) SQL
 - (c) DBA
