

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY-2008**II B.TECH II SEMESTER SUPPLEMENTARY EXAMINATIONS
DATA BASE MANAGEMENT SYSTEM
(COMPUTER SCIENCE&ENGINEERING, IT)**

AUG/SEP -2008

TIME-3 HOUR
MARK-80**ANSWER ANY FIVE QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.**

1. (a) Distinguish between DDL and DML.
(b) Explain various integrity constraints.
2. (a) what are the various salient features of the QBE ?
(b) Explain the following :
 - i. Relational database query.
 - ii. Query language
 - iii. SQL
 - iv. Embedded SQL.
3. What are differences among primary, secondary and clustering indices? How do these differences affect the implementation of indices? Which of the indexes are dense and which are not.
4. (a) Consider the following SQL query for a bank database $\text{Select T.branch - name From branch T, branch S where T.Assets } \neq \text{ S.assets and S.branch - city = "HY DERABAD"}$ Write an efficient relational algebra expression that is equivalent to the query.
(b) Define query optimization and at what point during query processing does optimization occur?
5. Discuss different types of parameters that are used in cost functions. Where is this information kept?
6. (a) Explain the following terms
 - i. Relationship instance
 - ii. Composite attribute
 - iii. Multivalued attribute
 - iv. Derived attribute.
(b) Construct an E-R diagram for a car insurance company with a set of customers, each of whom owns a number of cars. Each car has a number of recorded accidents associate with it. Determine the entities and relationships that exists between the entities. Also construct the tabular representation of the entities and relationships.
7. (a) Define these terms atomicity, consistency, isolation, durability, schedule, blind write.
(b) Write a note on the properties of transactions.
8. (a) When a system recovers from a crash ? In what order must transaction be Undone and Redone? Why is this order important?
(b) What is a log in the content of DBMS? How does check pointing eliminate some of the problems associated with log based recovery?