NAME_____ ROLLNO_____

2007 ANNA UNIVERSITY

B.E/B.TECH COMPUTER SCIENCE ENGINEERING

DBMS

DECEM- 2007

TIME-3HOUR
MARKS-100

ANSWER ALL QUESTIONS

PART A — (10 x 2=20 marks)

1. List five reponsibilities of the DB manager.

2. Give the limitations of ER model? How do you overcome this?

3. Define query language.Give the calssification of query language.

4. Why it is necessary to decompose a relation?

5. Give any two advantages of spare index over dense dense index.

6. Name the different types of joins supported in SQL.

7. What are the types of transperencies that a distributed database must support? why?

8. What benefit is provided by strict-two phase locking? What are the disanvantages result?

9. Briefly write the overall process of dataware housing.
10. What is an active database?

PARTB—(5x16=80 marks)

11 (a) (i) What are the types of knowledge discovered during data mining ? Explain with suitable examples.
(ii) HIghlight the features of object oriented database.
OR
(b) (i) What is nested relationls? Give example.
(ii) Explain the structure of XML with suitable example.

12 (a) (i) Compare file system with database system.
(ii) Explain the architecture of DBMS.
OR
(b) (i) What are the steps involved in designing a database application? Explain with an example
(ii) List the possible types of relations that may exist between two entities. How would you realise that into tables for a binary relation?

13. (a) (i) What are the relational algebra operations supported in SQL? Write the SQL statement for each operation.
(ii) Justify the need of normalization with examples
OR
(b) (i) What is normalization? Explain 1NF,2NF,3NF and BCNF with suitable example.
(ii) What is FD? Explain the role of Fd in the process of normalization.

14.(a) (i) Explain the security features provided in commercial query languages.

(ii) What are the steps involved in query processing? How would you estimate the cost of the query?
OR
(b) (i) Explain the different properities of indexes in detail.
(ii) Explain various hashing techniques.

15.(a) (i) Explain the four important properities of transaction that a DBMS must ensure to maintain database .
(ii) What is RAID? List the different levels in RAID technology and explain its features.
OR
(b) (i) What is concurrenct control? How is it implemented in DBMS? Explain.
(ii) Explain various recovery techniques during ttansaction in detail.