

Roll No.

24162

**B. Tech 4th Semester (Information
Technology) Examination – May, 2013**

DATABASE MANAGEMENT SYSTEMS

Paper : CSE-202-F

Time : Three hours]

[Maximum Marks : 100

Before answering the question, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any five questions. Question No. 1 is compulsory. Select one question from each Unit.

1. (a) What is the difference between two-tier and three-tier architecture ?
- (b) What is the difference between static hashing and dynamic hashing ?
- (c) Define Lock. What are the two modes of locking ?
- (d) Explain the difference between strong and weak entity type.

- (e) What is the purpose of view in SQL ? How can you create a view ?

SECTION – A

2. (a) What is file-processing system ? What are the disadvantages of a file-processing system that led to the development of the database system ?
- (b) Draw a diagram of the three-level architecture of database system and briefly explain the three levels.
3. Discuss the correspondence between the ER model construct and the relational model construct. Show how each ER model construct can be mapped to the relational model.

SECTION – B

4. (a) Explain the commonly used hash functions. What are the main problems associated with most of them, and how can it be resolved.
- (b) What is relational calculus ? What are its two forms ? Differentiate between them.
5. What do you mean by file organization ? Discuss the importance of file organization in database. Discuss in brief various type of file organizations available.

SECTION - C

6. Define normalization. State by giving examples, the conditions that are necessary for a relation to be in 1NF, 2NF, 3NF, BCNF.
7. What do you understand by a Query Language ? Distinguish between DDL, DML and DCL. Explain any three DDL & DML statements using suitable examples.

SECTION - D

8. (a) What is a Distributed Database ? What are its advantages & disadvantages over centralized database ? Explain.
(b) Differentiate between hierarchical and network model. Explain hierarchical model in detail.
9. Explain :
 - (a) Parallel Database
 - (b) Data Mining and data warehousing