

Roll No.

3030

**B. Tech. 3rd Semester (CSE)
Examination – December, 2022**

DATABASE MANAGEMENT SYSTEM

Paper : PCC-CSE-201-G

Time : Three hours]

[Maximum Marks : 75

Before answering the questions, 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 *five* questions in all, selecting *one* question from each Unit. Question number **1** is *compulsory*. All questions carry equal marks.

1. (a) Discuss Data Independence in detail.
- (b) Differentiate between Tuple and Attributes with example.
- (c) Discuss hashing in detail.
- (d) Define Data mining.
- (e) Define Integrity constraints.
- (f) Explain Database Recovery in detail. $2.5 \times 6 = 15$

3030-3-050-(P-3)/(Q-9)/(22)

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UNIT - I

2. Explain the types of data models in detail with suitable examples. 15
3. Write short note on : 15
- (a) DDL
 - (b) Data Abstraction

UNIT - II

4. What is Normal form ? Explain the various types of Normal forms in detail. 15
5. Write short note on : 15
- (a) Lossless Design
 - (b) SQL Server

UNIT - III

6. Explain Multi-Version and optimistic concurrency control schemes in detail. 15
7. Write short note on : 15
- (a) B-Trees
 - (b) ACID properly

3030-3,050-(P-3)(Q-9)(22) (2)

UNIT - IV

8. What is database security ? Explain the various models used for database security. 15
9. Write short note on : 15
- (a) Web databases
 - (b) Intrusion detection
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3030-3,050-(P-3)(Q-9)(22) (3)