

Roll No.

Total No. of Questions: 07

Total No. of Pages: 02

BCA (Sem. 4)
DATABASE MANAGEMENT SYSTEMS
Subject Code: BSBC-404
Paper ID: B0243

Time: 03 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. Section A is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. Section B contains **SIX** questions carrying **TEN** marks each and students have to attempt any **FOUR** questions.

SECTION A

1. Define:
 - a) Discuss Database Users.
 - b) Illustrate the term Data Abstraction.
 - c) Discuss the role of Data Dictionary.
 - d) Discuss the concept of Primary key and Candidate Key.
 - e) Explain the term Multi valued Dependency.
 - f) Discuss Database anomalies with the help of example.
 - g) Define Database Security.
 - h) Discuss Join concept with the help of suitable example.
 - i) Define the term Concurrency Control.
 - j) Explain the term Database Specialization.

SECTION B

2. Differentiate between the following:
 - i) Data Definition Language & Data Manipulation Language
 - ii) Generalization and Aggregation
3. The Network Data Model is a superset of hierarchical model. Explain with the help of an example.

4. Illustrate the fact that BCNF is strictly stronger than 3NF.

5. Why there is a need of database recovery? Discuss in detail Log-Based Recovery Scheme.

6. Explain the concept of Concurrency Management with the help of an example.

7. Discuss in detail the design of distributed database with the help of suitable example.