MCA (2014 Batch)   (Sem.–2)
RELATIONAL DATABASE MANAGEMENT SYSTEMS
Subject Code : MCA-202
M.Code : 26053

Time : 3 Hrs.   Max. Marks : 100

INSTRUCTIONS TO CANDIDATES :
1. **SECTIONS-A, B, C & D contains TWO questions each carrying TWENTY marks each and students has to attempt any ONE question from each SECTION.**
2. **SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.**

SECTION-A

1. Define DBMS. Discuss the concepts of data independence and data abstraction.

2. Discuss the process of database design.

SECTION-B

3. What are the various types of Constraints? Explain each with an example.

4. What do you mean by database recovery? Discuss the various recovery mechanisms in detail.

SECTION-C

5. What are distributed database management systems? Discuss the advantages and disadvantages of DDBMS.

6. What are distributed database transactions? What are its features? Discuss transaction transparency in detail.

SECTION-D

7. What do you mean by DSS? What is the importance of DSS databases? Explain the DSS database requirements.

8. Define OLAP. Elaborate OLAP architecture.

SECTION-E

9. **Write briefly :**

   a. What is Composite entity?

   b. Why do we need mappings between schema levels?

   c. Define Multi-Valued Dependency.

   d. Define Object-oriented database.

   e. What is concurrency? What are its problems?

   f. What are shared and exclusive locks? Explain with the help of suitable example.

   g. Differentiate between centralized and decentralized database designs.

   h. Define and distinguish between SPSD and MPMD.

   i. What is operational data? How is it different from decision support data?

   j. What is database administration?