Roll No. ⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚   **Total No. of Pages : 02**

Total No. of Questions : 18

B.Tech (CSE)   (Sem.–5)

DATABASE MANAGEMENT SYSTEMS
Subject Code : BTCS-501-18
M.Code : 78320

Time : 3 Hrs.   **Max. Marks : 60**

INSTRUCTION TO CANDIDATES :

 1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
 2. **SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.**
 3. **SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.**

SECTION-A

Answer briefly :

1) What is Data Independence?

2) Define the term Entity.

3) Difference between relation calculus and relational algebra.

4) What is Transitive Dependency?

5) What is Indexing?

6) Explain briefly various kinds of privileges.

7) What is shadow paging?

8) What is a transaction?

9) Why database security is important?

10) What is Locking?

SECTION-B

11) What are integrity constraints? Why they are important?

12) What is the purpose of normalization in DBMS?

13) Discuss various concurrency control techniques.

14) Discuss the importance of Authentication.

15) Explain Distributed databases with its advantages.

SECTION-C

16) a) What is data model? Explain its types.

    b) Explain various data models.

17) Write note on hashing.

18) What are Object-Oriented Databases? Write its advantages and disadvantages.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.