

Roll No.

Total No. of Pages : 02

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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.**