

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

Date of Examination : 14-06-2024

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS 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 have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a) Define integrity constraints.
- b) What do you mean by lossless decomposition of relation?
- c) What are the characteristics of 3-tier architecture of database?
- d) Define isolation property of transactions.
- e) What tertiary storage?
- f) Define authorization.
- g) List down the advantages of DDBMS.
- h) Define serializable schedule.
- i) What is query optimization?
- j) What is SQL injection?

SECTION-B

2. What are the benefits of extended feature of ER model? Draw any ER model using Extended Features.
3. Explain the difference between Cartesian product and natural join with an example.
4. What is hashing? How does it work?
5. What do you mean by locks in transaction processing? How locks are implemented?
6. Explain mandatory access control system.

SECTION-C

7.
 - a) Explain referential integrity constraints.
 - b) Explain the characteristics and drawbacks of network database model.
8. What is concurrency control in databases? Explain various conflicts of concurrency control system with an example.
9.
 - a) Discuss data allocation in Distributed Databases.
 - b) Discuss intrusion detection in Databases.

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.