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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CSE/EEE/ECE/EE/ME) (Sem.-7)

DATABASE MANAGEMENT SYSTEMS

Subject Code : BTCS-501-18

M.Code : 90493

Date of Examination : 13-01-23

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) What is data abstraction?
- b) Write the syntax of create table command. Create student table with any three attributes.
- c) Define super key. Give an example.
- d) What is weak entity?
- e) Define connectivity in ER Diagram.
- f) List various advantages of ER Diagram.
- g) What is Join dependency?
- h) How can starvation occur in lock-based protocol?
- i) Define transaction. Give example.
- j) What is SQL Injection?

SECTION-B

2. Explain different entities used in database management system.
3. Discuss in detail Armstrong's Axioms rules.
4. Explain in detail various levels of database security.
5. Explain in detail web databases.
6. What is lock-based protocol? Discuss lock compatibility. How can deadlock occur in lock-based protocol?

SECTION-C

7. Discuss all forms of normalizations with the help of an example each.
3. What is checkpoint? Explain the algorithm used for recovery from failure using checkpoints.
- . Describe the overall architecture of a Database Management System. Discuss each component of DBMS architecture.