Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. CSE (Internet of Things and Cyber Security including Block Chain Technology) (Sem.–5)

DATABASE MANAGEMENT SYSTEMS

Subject Code : BTCS-501-18

M.Code : 92359

Date of Examination : 15-12-22

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) Need of various data models

  b) Features of ER model

  c) Limitations of MYSQL

  d) Usage of open source DBMS

  e) Examples of query optimization

  f) Significance of hashing

  g) Advantages of B-Trees

  h) Role of Indices

  i) Characteristics of Oracle

  j) Name the concurrency control schemes.

SECTION-B

2. How ER model is different from Network model?

3. Explain any three DDL commands used in SQL.

4. How does the evaluation of relational algebra expressions is done?

5. Differentiate between Ordered indexing and Hashing.

6. Discuss the ACID property in detail.

SECTION-C

7. Discuss the major purposes of SQL query optimization in detail. Also define the metrics for analyzing query performance for SQL query optimization.

8. Define integrity constraints. Explain the various types of integrity constraints.

9. How does the serializable schedule preserves the order of the operation in each of the individual transaction?

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.