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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 :BTCS501-18

M.Code : 92359

Date of Examination : 29-11-2024

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) What is Primary Key? Give Example.
- (b) Differentiate between **SELECT** AND **FROM** clauses in a SQL query.
- (c) Define lock. What are the two modes of locking?
- (d) Differentiate between weak entity set and strong entity set.
- (e) Explain the concept of inheritance in the context of object orient databases.
- (f) Explain Functional Dependency.
- (g) What do you mean by concurrency control?
- (h) What do you mean by 2PL?
- (i) Define the term Relational Databases.
- (j) Explain candidate key.

SECTION-B

2. Differentiate between file based approach and data base approach.
3. What is Transaction? Discuss ACID properties in details.
4. Why should normalization be performed on a table and what are its benefits?
5. Differentiate between two-tier and three- tire database architecture.
6. Perform a Comparative Study between the Hierarchical Database Model and Network Data Model.

SECTION-C

7. What is deadlock? List and discuss the four conditions for Deadlock.
8. What is attribute? Explain different type of attributes with examples in detail.
9. Why is recovery needed? Discuss any two Recovery Techniques.

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.