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B.Tech. (CSE) 4th Semester F-Scheme

Examination, May-2019

DATABASE MANAGEMENT SYSTEMS

Paper-CSE-202-F

Time allowed : 3 hours]

[Maximum marks : 100

Note : Attempt **five** questions in total, selecting **one** question from each unit. **Question No. 1 is compulsory.** All questions carry equal marks.

1.
 - (i) Meta data and data dictionary
 - (ii) Sequential files
 - (iii) Types of database users
 - (iv) Entity integrity constraint
 - (v) Data mining
 - (vi) Hashing
 - (vii) Life cycle of transaction
 - (viii) Recovery techniques

Unit-I

2. Differentiate between data, database, DBMS and database system with examples. Also explain three level architecture of database.

3. Explain the E-R diagram of online counseling. Also discuss the following :
- (a) Reduction of ER diagram into tables
 - (b) Mapping

Unit-II

4. Discuss the following :
- (a) B-tree index files
 - (b) Direct file
5. What is RDBMS ? Is there any order of tuples. Explain various operation of relational algebra.

Unit-III

6. (a) What are various DDL commands in SQL ? Give brief description of their purposes.
- (b) Can we work with unnormalized database? Explain the normalization in detail.
7. Discuss Boyce-Codd Normal form in detail with merits and demerits.

Unit-IV

8. (a) What do you mean by functional dependency ? Also explain referential integrity constraint.
- (b) Explain two phase locking and binary locking.

9. Write the short notes on the following :
- (a) Need of concurrency control
 - (b) Network model
 - (c) Properties of transaction
 - (d) Hierarchical model