

**24162**

**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. <https://www.haryanapapers.com>

#### 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