

24162

**B.Tech. 4th Semester (CSE) (F-Scheme) Examination,
May-2018**

DATABASE MANAGEMENT SYSTEMS

Paper-CSE-202-F

Time allowed : 3 hours] [Maximum marks : 100

Note : Attempt any five questions in all, selecting one question from each Part. Question No. 1 is compulsory.

1. (a) What is a weak entity ? Give an example.
- (b) State the need of query optimization.
- (c) Write the characteristics that distinguish the Database approach with the file based approach.
- (d) What is authorization and authentication in oracle ?
- (e) Write about the four types of Data warehouse schemas.
- (f) What is data stripping ?
- (g) Why is B+ tree efficient than B tree.
- (h) Explain atomicity of a transaction.
- (i) What is Database and DBMS ?
- (j) Define Primary and Foreign Key.

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[P.T.O.]

Section-A

2. (a) Explain the overall system structure of Database management system. 10
- (b) Illustrate the need for a Database system with the help of suitable example. 10
3. (a) Draw an E-R diagram for a student management system. Assume suitable entity and relations. 10
- (b) Give a brief note on the different views of data, with the necessary diagram. 10

Section-B

4. Discuss how multi-level indexes are constructed using B trees and B+ trees. 20
5. (a) Explain static hash function. What is the need for dynamic hash function. 10
- (b) Explain the principle of the various RAID levels. 10

Section-C

6. (a) Explain 2nd normal form and Boyce-code normal forms with example. 10
- (b) Explain domain constraints and referential integrity with examples. 10

7. Explain how sorting queries are processed with examples. 20

Section-D

8. (a) What is the need of concurrency control ? Illustrate the problem with suitable example. 10
- (b) Explain 2-Phase commit protocol. 10
9. What is serializability ? What are its types ? What is a serializability schedule ? Give example. 20