

**322556(22)**

**B. E. (Fifth Semester) Examination,  
April-May 2021**

**(New Scheme)**

**(CSE Branch)**

**DATABASE MANAGEMENT SYSTEM**

***Time Allowed : Three hours***

***Maximum Marks : 80***

***Minimum Pass Marks : 28***

***Note : Attempt all questions. Part (a) of each question is compulsory. Attempt any two parts from (b), (c) and (d) of each question.***

**Unit-I**

1. (a) Define Data Dictionary.

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- (b) Explain three levels of Architecture of DBMS. 7
- (c) What is an Attribute? Explain various types of Attributes in details. 7
- (d) Define Generalization and Specialization with suitable diagram. 7

**Unit-II**

- 2. (a) Define Primary Key. 2
- (b) What do you mean by Constraints and explain its types? 7
- (c) What is Relational Algebra? What are the operations performed in Relational Algebra? 7
- (d) Write short notes on Tuple and Domain Calculus. 7

**Unit-III**

- 3. (a) Define Alter Command. 2
- (b) What is SQL? Explain DDL and DMK with examples. 7
- (c) Explain Trigger in detail. 7
- (d) Explain Logical Operation in SQL with example. 7

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**Unit-IV**

- 4. (a) What do you mean by Schema? 2
- (b) Describe Multivalued Dependency with example. 7
- (c) Explain Serializability and the concept of conflict Serializability. 7
- (d) Define Normalization and also described the BCNF. 7

**Unit-V**

- 5. (a) Define Recovery System. 2
- (b) Explain in details about B<sup>+</sup> Tree. 7
- (c) What are the different types and causes of failure? 7
- (d) Explain record storage primary file organization. 7