

H-93-21**Roll No.**

ANNUAL EXAMINATION, 2021

B.C.A. II**B.C.A. 202****Paper II**

(Database Management System)

Time : 3 Hours]

[Maximum Marks : 80

Note : *Attempt any two parts from each unit. All questions carry equal marks.*

Unit-I

1. (a) Describe the architecture of DBMS architecture.
- (b) What is data dictionary ? What are the contents of data dictionary ?
- (c) Explain the data model in detail.

Unit-II

2. (a) Define E-R model with example. How to convert an E-R model into relational schema ?
- (b) Discuss the extended E-R features.
- (c) Explain the UML with example.

Unit-III

3. (a) Explain the set operations with example.
- (b) Describe the tuple relational calculus with example.
- (c) Discuss the simple and complex queries using relational algebra.

Unit-IV

4. (a) What is functional dependencies ? Write the types of functional dependencies, also.
- (b) Explain 1NF, 2NF and 3NF with example.
- (c) Differentiate between normalization and de-normalization.

Unit-V

5. (a) Discuss the INSERT, UPDATE and DELETE statements with example.
- (b) Describe the query processing.
- (c) What is a trigger ? Explain with example.

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