

FD-2863

BCA (Part-II) Examination, 2022

Paper - II

Database Management System

Time: Three Hours] [Maximum Marks: 80 [Minimum Pass Marks: 27]

Note: Answer any **two** parts from each question. All questions carry equal marks.

Unit-I

- **1.** (a) What is Data independencies. Discuss in brief.
 - (b) What is the role of DBA?
 - (c) Explain advantages of DBMS over file processing system.

Unit-II

- **2.** (a) What are the keys in DBMS? Discuss its types.
 - (b) Explain any two of the following:
 - (i) Weak entity
 - (ii) Derived attributes
 - (iii) Composite attributes
 - (c) What is entity-relationship diagram? Explain with example.

Unit-III

- **3.** (a) Explain about select, project operation in Relational Algebra.
 - (b) Explain the following:
 - (i) Natural join
 - (ii) Full outer join
 - (c) Define Formal definition of tuple relational calculus expression.

Unit-IV

- **4.** (a) What is Normalization? Define 3NF with an example.
 - (b) What do you mean by Functional Dependency?
 - (c) Give example on Multivalued Dependencies.

Unit-V

5. (a) Give Basic structure of SQL.

- (b) What are the views? Explain.
- (c) What are the aggregate functions in SQL?
