

BCA-09/DCA-103

June – Examination 2022

BCA (Part II)/DCA Examination

Database Management System

Paper : BCA-09/DCA-103

Time : 1½ Hours]

[Maximum Marks : 70

Note :- The question paper is divided into two Sections A and B. Write answers as per the given instructions.

Section-A

4×3½=14

(Very Short Answer Type Questions)

Note :- Answer any *four* questions. As per the nature of the question delimit your answer in one word, one sentence or maximum up to **30** words. Each question carries 3½ marks.

1. (i) Define composite and multi-value attributes in ER diagram.

- (ii) Write the generalized syntax of the INSERT query.
- (iii) Define cardinality ratio in ER Model.
- (iv) What is atomicity of a transaction ?
- (v) What is concurrency control ?
- (vi) Give three commands used in Data Definition Language (DDL).
- (vii) Differentiate between entity and attributes used in ER diagram.
- (viii) Give four data types supported by SQL.

Section-B **4×14=56**

(Short Answer Type Questions)

Note :- Answer any *four* questions. Each answer should not exceed **200** words. Each question carries 14 marks.

- 2. What do you mean by DBMS ? List the differences between a file processing system and DBMS.
- 3. What do you mean by Query and Sub-query ? Discuss the various characteristics of SQL and explain five aggregate functions.

- 4. Explain the concept of DDL and DML commands in DBMS.
- 5. What are the various properties of transaction ?
- 6. Construct an ER diagram for an election commission office. The office maintains data about each type of election, parties, candidates, voter and other relevant details. Clearly highlight the primary keys and mapping cardinalities.
- 7. Describe the five components of DBMS environment and discuss how they relate to each other.
- 8. What do you understand by 'Functional Dependency' ? Discuss various types of dependencies with suitable examples.
- 9. Explain ACID properties. Why are they important in transaction ?