491

BCA-09/DCA-103

December - Examination 2019

BCA Pt. II/DCA Examination

Database Management System

Paper - BCA-09/DCA-103

Time : 3 Hours] **[Max. Marks :- 70**

Note: The question paper is divided into three sections A, B and C. Write answers as per given instructions.

Section - A $7 \times 2 = 14$

(Very Short Answer Questions)

Note: Answer **all** questions. As per the nature of the question delimit your answer in one word, one sentence or maximum upto 30 words. Each question carries 2 marks.

1. (i) Define Aggregation.
   (ii) Name the various components of DBMS.
   (iii) Define cardinality ratio in ER Model.
   (iv) What is the role of a data dictionary in a database environment?
   (v) What is joins in RDBMS?
   (vi) Give three commands used in Data Definition Language (DML).
   (vii) Differentiate between entity and attributes used in ER diagram.

Section - B $4 \times 7 = 28$

(Short Answer Questions)

Note: Answer **any four** questions. Each answer should not exceed 200 words. Each question carries 7 marks.

2. What is Key in RDBMS? How primary key is different from foreign key? Give an example of each.

3. What do you mean by DBMS? List the differences between a file processing system and DBMS.

4. Compare Oracle and SQL server on the basis of strength.

5. Explain with an example the basic difference between where clause and having clause of select statement.

6. How timestamp ordering ensure concurrency control?

7. What are the various properties of transaction?

8. Explain the different types of failures of databases with the help of example.

9. Explain different type of integrity constraints with example.

Section - C $2 \times 14 = 28$

(Long Answer Questions)

Note: Answer **any two** questions. You have to delimit your each answer maximum upto 500 words. Each question carries 14 marks.

10. 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.

11) Describe the five components of DBMS environment and discuss how they relate to each other.

12) What do you mean by Query and sub-query? Discuss the various characteristics of SQL and explain five aggregate functions with suitable example.

13) What do you understand by 'Functional Dependency'? Discuss various types of dependencies with suitable examples.