A-0846

BCA-09

Database Management System

Bachelor of Computer Application (BCA)

3rd Semester Examination 2024(Dec.)

Time: 2:00 hrs   Max. Marks: 70

Note : This paper is of Seventy (70) marks divided into Two (02) Section A and B. Attempt the questions contained in these sections according to the detailed given therein. Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

Section-A (Long-Answer-Type Questions)

Note : Section 'A' contains Five (05) long-answer-type questions of Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

[2x19=38]

Q.1. What is a DBMS? Explain its components and advantages over traditional file-based systems. Use examples to illustrate your points.

Q.2. Describe the different types of data models in DBMS. Explain the relational, hierarchical, and network models with diagrams and examples.

Q.3. What are the ACID properties of a transaction in DBMS? Discuss their significance in maintaining the reliability and integrity of a database.

Q.4. Define SQL and Explain the different types of SQL commands with examples of each type.

Q.5.   Explain 1NF, 2NF, 3NF and BJNF with examples of each Normalization.

Section-B (Short-Answer-Type Questions)

Note : Section 'B' contains Eight (08) short-answer-type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only.

[4x8=32]

Q.1.   Write some applications of DBMS?

Q.2.   Define primary key with suitable example.

Q.3.   What is the purpose of locks in database?

Q.4.   What is a transaction in DBMS give one example.

Q.5.   What is SQL, and why is it used?

Q.6.   Write the SQL command to create a table named "Students" with columns "ID", "Name," and "Age."

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Q.7.   What is the difference between the WHERE and HAVING clauses in SQL?

Q.8.   Write an SQL query to fetch all records from a table named "Employees" where the salary is greater than 20,000.

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