A-0870

DIT-05

Database Management System

(DIT)

2nd Semester Examination 2024(Dec.)

Time: 2:00 hrs   Max. Marks: 100

Note : This paper is of Hundred (100) marks divided into Two (02) Section A and B. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

P.T.O.

Section-A (Long-Answer-Type Questions)

Note : Section 'A' contains Five (05) long-answer-type questions of Twenty Six (26) marks each. Learners are required to answer any Two (02) questions only.

[2x26=52]

Q.1. Explain the 2NF, 3NF and BCNF normal forms with examples.

Q.2. Explain Client/Server architecture in detail.

Q.3. What are data models? What is a relational data model? How relational data model is different from network data model?

Q.4. What is SQL? Explain the classification of SQL Statements with an example.

Q.5. What is functional dependency? Explain full functional dependency, partial dependency, transitive dependency and multi-valued dependency.

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Section-B (Short-Answer-Type Questions)

Note : Section 'B' contains Eight (08) short-answer-type questions of Twelve (12) marks each. Learners are required to answer any Four (04) questions only.

[4x12=48]

Q.1.   What is database Security? Explain the types of security.

Q.2.   Write a short note on database backup and database recovery.

Q.3.   Describe any six Codd's rules/laws of RDBMS.

Q.4.   Explain physical data independence and logical data independence.

Q.5.   What are the responsibilities of DBA? Explain.

P.T.O.

Q.6. Differentiate between Database system and File System.

Q.7. Explain the difference between prime and Non-prime attribute.

Q.8. Explain the following keys with an example.

    i.   Primary Key

    ii.   Candidate Key

    iii.   Super Key

    iv.   Foreign Key

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