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MASTER OF COMPUTER APPLICATIONS
(Specialization in Artificial Intelligence & Machine Learning)
EXAMINATION : JANUARY - 2025
SEMESTER - I
Sub:Database Management Systems (MCAI 23-104)

Date : 07/01/2025

Total Marks : 60

Time: 2.00 pm to 4.30 pm

Instruction:

1. All questions are compulsory unless and otherwise stated.
2. Bold figures to the right of every question are the maximum marks for that question.
3. Candidates are advised to attempt questions in order.
4. Answers written illegibly are likely to be marked zero.
5. Use of scientific calculators, Log tables, Mollier Charts is allowed.
6. Draw neat and labelled diagram wherever necessary.

Q.1. Answer the following in 2-3lines. (Any 5) (10)

1. List out Transaction Control Commands with its use.
2. What is the use of intersect operator in SQL.
3. Define Lock Table.
4. Brief about Commit protocol.
5. Define: Intension in RDBMS.
6. Write a basic syntax of update query with where clause.
7. Brief about foreign key concept in database.

Q. 2. Answer the following in short. (Any 4) (20)

1. Write a short note on : Not Null Constraints
2. What is Functional Dependency? Explain its types.
3. What are the desirable properties of transaction operations?
4. Brief on any 5 Basic Object Oriented Database Management Systems (OODBMS) terminologies.
5. Write a short note on: XQuery.
6. Explain DCL commands with appropriate syntax.

Q. 3. Answer the following in detail. (Any 3) (30)

1. What is function? Explain aggregate functions with its syntax
2. What is Join? What are the different types of SQL Joins?
3. Define On-Line Transaction Processing (OLTP) System with example. Explain characteristics of OLTP.
4. What is Distributed Database? Explain Client–Server Architecture and Peer-Peer Architecture of DDBMS.
5. Explain Video Database Management with its components.
