MB116G

Sl. No.

III Semester M.B.A. Degree Examination, May/June - 2026

MANAGEMENT (Information Technology)

Database Management System

(Non-CBCS Scheme) (Elective-G)

Time : 3 Hours **Maximum Marks : 80**

SECTION - A

Answer any Five sub-questions. Each sub-question carries Three marks. (5×3=15)

1. a) List the advantages of using DBMS.

b) State the functions in SQL Aggregation.

c) Define the third normal form in DBMS.

d) What is Static Hashing?

e) What are Concurrent Executions?

f) Define Lock based protocols.

g) What is Algebraic Manipulation?

SECTION - B

Answer any Four questions. Each question carries Five marks. (4×5=20)

2. What are the advantages of using an Enhanced Entity-Relationship (EER) model in database design?

3. What are the classification of data models, and provide examples of each type?

4. Explain the Second Normal Form (2NF) and how it eliminates partial dependencies.

5. Differentiate between Online Transaction Processing (OLTP) and Online Analytical Processing (OLAP) systems.

6. What are the key concepts of statistical database security, and how is it different from traditional security measures?

7. What is Query-By-Example (QBE), and how does it differ from SQL in terms of querying databases?

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SECTION - C

Answer any Three questions. Each question carries Ten marks. (3×10=30)

8. What is the role of a database administrator (DBA), and what are their responsibilities?

9. Explain the concept of B-Tree index files and how they maintain balanced trees for efficient data retrieval.

10. Discuss the advantages and challenges of using distributed databases in modern IT environments.

11. What is statistical database auditing, and how is it different from traditional auditing methods?

12. How does real-time transaction processing differ from batch processing, and what are the applications of real-time systems?

SECTION - D

(Compulsory)

Case Study. (1×15=15)

13. ABC Bank is a prominent financial institution that manages vast amounts of sensitive customer data and financial transactions.They rely on Oracle as their preferred database management system.The bank's top priority is to ensure the utmost security and protection of its database from any potential threats.

a) What specific security measures can ABC Bank implement using Oracle to protect customer data and prevent unauthorized access?

b) In a financial institution like ABC Bank, how can Oracle Database Vault be utilized to implement a robust separation of duties and secure access controls?

c) How can Oracle's Advanced Security features, such as Transparent Data Encryption (TDE), help the bank in securing sensitive financial data at rest and in transit?

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