



K21P 2603

Reg. No. : .....

Name : .....

**V Semester M.C.A./M.C.A. (Lateral Entry) Degree (CBSS – Reg./Suppl. /Imp.)  
Examination, November 2021  
(2016 Admission Onwards)**

**MCA 5C26 : ADVANCED DATABASE MANAGEMENT SYSTEMS**

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **any ten** questions. **Each** question carries **three** marks.

1. What is meant by triggers ?
2. What are the uses of recursive queries ?
3. Write short note on the data dictionary.
4. What is meant by query processing ? Briefly explain the steps involved in processing a query.
5. Define the term (i) materialization and (ii) pipelining.
6. Define the term transaction. Briefly explain the terms (i) atomicity and (ii) isolation.
7. Define the term serializability in database transaction.
8. What is meant by dead lock ? List various mechanisms for avoiding dead locks.
9. What is meant by range partitioning ?
10. Write short note on intraquery parallelism.
11. Write short note on TF-IDF approach.
12. What are the importance of indexing of a document ?

P.T.O.



SECTION – B

Answer **all** questions. **Each** question carries **ten** marks.

13. a) Explain any two methods of accessing SQL from a programming language with examples.

OR

b) What is meant by RAID ? Explain its advantages and explain any two RAID levels.

14. a) Explain in detail the following operations with suitable examples :

- i) Selection operation
- ii) Sorting operation
- iii) Join operation.

OR

b) Explain the steps involved in processing a query with suitable illustrations.

15. a) What is meant by transaction ? With a simple transaction model explain various properties of transactions of a database system.

OR

b) Discuss the importance of timestamp-based protocol and validation-based protocols in detail.

16. a) Discuss the concept of parallel databases with example.

OR

b) Explain the important features of distributed and cloud databases.

17. a) With suitable example explain the concept of relevance ranking using terms.

OR

b) What is meant by object-based databases ? Discuss structured types and inheritance in SQL.