

K19P 0003

Reg. No. :

Name :

Fifth Semester M.C.A. Degree (Reg./Supple./Imp.) Examination, January 2019
(2014 Admission Onwards)

MCA 5C 26 : ADVANCED DATABASE MANAGEMENT SYSTEMS

Time : 3 Hours

Max. Marks : 80

SECTION - A

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

1. Define the term :
 - a) Indexing
 - b) OLAP
2. Differentiate between static hashing and dynamic hashing.
3. List out the operations that are useful in query processing.
4. Differentiate between a Discretionary Access Control and a Mandatory Access Control.
5. How to estimate the statistics of expression results in query optimization ?
6. What are lock-based protocols ? Give example.
7. Define the terms :
 - a) recovery
 - b) atomicity
8. What are the functions of Network Processor, Remote data processor.
9. What are decision support systems and what role do they play in the business environment ?
10. Define the term Deductive Database System.
11. Differentiate between the object-oriented and object-relational databases.
12. What are the various reference types that are used in SQL ? (10×3=30)

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SECTION – B

Answer all questions. Each carries ten marks.

13. a) Explain the concept of B+-Tree index files and B+-Tree extensions with suitable example. 10
- OR
- b) Discuss in detail the concept of functions and procedures with suitable example. 10
14. a) Describe in detail the selection, sorting and join operation with suitable examples. 10
- OR
- b) Explain the concept of transformation of relational expressions and choice of evaluation plans with suitable example. 10
15. a) Explain the concept of recovery system and concurrency control with suitable example. 10
- OR
- b) Describe in detail the transaction process and storage structure of simple model with suitable example. 10
16. a) Discuss the concept of parallel database with example. 10
- OR
- b) Explain the concept of query processing and cloud based database with suitable example. 10
17. a) Explain the concept of relevance ranking with various terms with suitable example. 10
- OR
- b) Describe in detail the various complex data types and structure types in object-based database with suitable example. 10

(5×10=50)