



K18P 0053

Reg. No. :

Name :

**Fifth Semester M.C.A. Degree (Regular/Supplementary/Improvement)
Examination, January 2018**

**MCA 5 C 26 : ADVANCED DATABASE MANAGEMENT SYSTEMS
(2014 Admissior. Onwards)**

Time : 3 Hours

Max. Marks : 80

PART - A

Answer **any ten** questions, **each** question carries **three** marks :

1. List out the advanced aggregation features.
2. What are the uses of recursive queries ?
3. How to distinguish indexing and hashing functions ?
4. Mention the uses of selection operation.
5. Define query optimization.
6. Comparison between atomicity and durability of transaction.
7. What are the uses of recovery algorithm ?
8. List out the goals of time stamp based protocols.
9. How intraoperation parallelism is differ from interoperation parallelism ?
10. Discuss the design issues of commit protocols.
11. Compare and contrast synonyms and homonyms.
12. What are the reference types in SQL ?

(10×3=30)

P.T.O.



PART – B

Answer **all** questions, **each** question carries **ten** marks :

13. a) Explain the accessing SQL from a programming language with suitable examples. 10
- OR
- b) i) Explain the B+ tree index files with examples. 5
ii) Discuss the operations and uses of static and dynamic hashing. 5
14. a) i) Explain sorting operations with suitable examples. 5
ii) Describe the evaluation of expressions with suitable examples. 5
- OR
- b) List out the various merits and steps of different optimization query techniques. 10
15. a) With neat diagram of simple transaction model, explain the various design issues, briefly. 10
- OR
- b) Discuss the importance of lock-based protocols and validation based protocols briefly. 10
16. a) i) Explain the various properties of I/O parallelism databases. 5
ii) Discuss interquery and intraquery parallelism briefly. 5
- OR
- b) Describe the importance of concurrency control in distributed databases with suitable examples. 10
17. a) Define ontology. Explain the characteristic features, goals and applications of ontology with suitable examples. 10
- OR
- b) i) Explain the complex data types uses in object based databases with suitable examples. 5
ii) Compare and contrast between object oriented and object relational features briefly. 5