



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.C.A. DEGREE EXAMINATION – COMPUTER APPLICATIONS

FIRST SEMESTER – NOVEMBER 2016

16PCA1MC05 - DATABASE MANAGEMENT SYSTEMS

Date: 11-11-2016
Time: 01:00-04:00

Dept. No.

Max. : 100 Marks

PART – A

Answer ALL questions

10 X 2 = 20

1. Write the relational algebra for select operation.
2. Define privileges. List its types.
3. Write the pitfall to be avoided during database schema design.
4. Write Armstrong's axioms on FD.
5. What is URL?
6. Give the ways of organizing records in a files.
7. When overflow of bucket occurs in data storage?
8. What statistical information will be stored in data catalog?
9. Give the types of transaction serialization.
10. List the types of failures.

PART – B

Answer ALL questions

5 X 8 = 40

11. a) Write note on database languages.
Or
b) What is table view? Explain its operations with example.
12. a) With the basic notation of ER, construct a design for banking schema.
Or
b) What is BCNF? Discuss it with example.
13. a) What are triggers? Describe its features with example.
Or
b) Write note on various levels of RAID.
14. a) Elucidate the bitmap indices on relations.
Or
b) Discuss on operations of materialized view optimization.
15. a) Explicate on various transaction states.
Or
b) Write note on the following:
 - (i) Recovery with concurrent transactions
 - (ii) Buffer Management

PART – C

Answer any TWO questions

2 X 20 = 40

16. a) Explain the various methods of SQL join with example.
b) "Oracle is proficient Relational Database Management System" – Justify.
17. a) Discuss the theoretical aspects of Entity Relationship model.
b) Explain construction, performance and optimization of magnetic disks.
18. a) Explain the various techniques of processing join queries.
b) Elaborate deadlock handling in database.
