



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

**M.C.A. DEGREE EXAMINATION – COMPUTER APPLICATIONS**

FIRST SEMESTER – APRIL 2018

**CA 1808- DATABASE MANAGEMENT SYSTEMS**

Date: 30-04-2018  
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

**PART – A**

**Answer ALL questions**

**10 X 2 = 20**

1. Define DBMS.
2. What are various forms of authorization?
3. List few parts of UML.
4. Define 1NF.
5. Write the syntax of creating roles in sql.
6. Define data dictionary.
7. Give few types of file indices.
8. Define query optimization.
9. What is concurrent execution? Why is it needed?
10. Why buffer need to be maintained in data recovery?

**PART – B**

**Answer ALL questions**

**5 X 8 = 40**

11. a) Elucidate on disadvantages of file system.  
Or  
b) Write and explain the aggregate functions of sql.
12. a) Explain the basic notion of ER with an example.  
Or  
b) What are multivalued dependencies? Explain 4NF with example.
13. a) Define Triggers. Explain its features and need.  
Or  
b) Write note on various RAID levels.
14. a) What is dynamic hashing? Explain its features.  
Or  
b) Describe the choices of evaluation plan.
15. a) Write note on lock based protocol of transaction.  
Or  
b) Describe data recovery with concurrent transaction.

**PART – C**

**Answer any TWO questions**

**2 X 20 =40**

16. a) With necessary diagram explain database architecture.  
b) Discuss on BCNF with example. How it differs from 3NF?
17. a) Explain the overview of physical storage media.  
b) Discuss on various equivalence rule.
18. a) Explain time stamp based protocol of transaction.  
b) "Microsoft SQL is one of the effective DBMS language"- Justify.

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