



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

**M.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE**

**SECOND SEMESTER – APRIL 2014**

**CS 2828/2822 - ADVANCED DATA BASE SYSTEMS**

Date : 05/04/2014  
Time : 09:00-12:00

Dept. No.

Max. : 100 Marks

**Part - A**

**Answer All the Questions:**

**(10 x 2 = 20)**

1. Define redundancy in databases.
2. Define weak entity.
3. What is self-referential integrity?
4. Write down the syntax of altering a table.
5. Write down the group functions in SQL.
6. Write down the syntax and usage of null value function in SQL.
7. What is log based recovery?
8. What is two-phase commit protocol?
9. What are the data types used in spatial databases?.
10. Define attributes and methods.

**Part - B**

**Answer all the Questions:**

**(5 x 8 = 40)**

11 a) Write down the advantages of database management systems..

(Or)

b) Explain different storage schemes in databases.

12 a) Explain relational algebra operators with example.

(Or)

b) Explain the types of integrity constraints with example.

13 a) Explain aggregate operators in SQL.

(Or)

b) Explain functional dependencies with example.

14 a) Explain concurrency problems in detail.

(Or)

b) Write down the properties of transaction. Explain each property.

15 a) Explain semi-join and the various schemes applied to estimate the cost involved in query execution of DDBMS.

(Or)

b) Explain the security issues involved in databases.

**Part – C**

**Answer any two:**

**(2 x 20 = 40)**

16. a) Write down the characteristics of database management system. How DBMS differs from FMS?

b) Explain DDL commands on tables and views with example. (10)

17 a) Explain the steps involved in query processing.. (10)

b) Explain concurrency problems in transaction in detail. (10)

18. a) Explain the architecture of parallel databases. (10)

b) Explain 1NF,2NF,3NF and BCNF with examples. (10)

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