

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



M.C.A. DEGREE EXAMINATION – COMPUTER APPLICATIONS

FIRST SEMESTER – NOVEMBER 2019

16/17/18PCA1MC05 – DATABASE MANAGEMENT SYSTEMS

Date: 06-11-2019

Dept. No.

Max. : 100 Marks

Time: 01:00-04:00

PART – A

Answer **ALL** questions:

10 X 2 = 20

1. Write the levels of abstractions.
2. What are integrity constraints?
3. Give the pitfalls to be avoided in database design.
4. How 1NF is implemented in tables?
5. Define Trigger and its requirements.
6. What is data dictionary?
7. List the techniques for Indexing.
8. Define Materialized view.
9. Abbreviate ACID property.
10. Classify the failures of database system.

PART – B

Answer **ALL** questions:

5 X 8 = 40

11. a) Write note on Database Languages.
Or
b) List and explain the queries of aggregate functions.
12. a) Write note on extended ER features.
Or
b) Describe BCNF with example.
13. a) Categorize and explain the Application security.
Or
b) Write the levels of RAID and explain them with necessary diagram.
14. a) Elucidate on B+ tree indexing of file with example.
Or
b) List and explain various selection operations.
15. a) Write short note on two phase locking protocols.
Or
b) Explain the recovery mechanism of concurrent transaction.

PART – C

Answer any **TWO** questions:

2 X 20 =40

16. a) Discuss on various data manipulation queries with example.
- b) Listing out the basic notations of ER, explain its implementations with example.
17. a) Elaborate the physical storage hierarchy with necessary diagrams.
- b) Discuss on various equivalence rule of query optimization.
18. a) Explain deadlock handling in transactions.
- b) Explain the features of Oracle to justify as RDBMS.

@@@@@