Reg. No.: ....

Name : ....

K21P 3108

II Semester M.C.A. Degree (C.B.S.S. – Regular) Examination, May 2021 (2020 Admission)
MCA 2C03 : DATABASE MANAGEMENT SYSTEMS

Time : 3 Hours

Max. Marks : 60

SECTION – A

Answer **all** questions. **Each** question carries **two** marks.

1. Explain the three schema architecture.
2. Give a note on integrity constraints in the database.
3. With a suitable example explain correlated subqueries.
4. List any four features of PostgreSQL.
5. Give a note on transaction states.
6. Explain read-write and write-read conflicts between two transactions.
7. Explain parallel vs distributed systems.
8. Explain two-phase commit protocols used in DBMS.
9. What do you mean by big data ?
10. What do you mean by decision support systems ?

SECTION – B

Answer **all** questions. **Each** question carries **eight** marks.

11. A) Explain the structure of DBMS.

OR

B) Explain BCNF, 4NF and 5NF with suitable examples.

12. A) Give a note on cursors with suitable examples.

OR

B) Consider the following schema :

Book _list(BID,Title, Author,Price, Status)

Issued_Books(BID, MID, Issue_date, Return_date)

Member_ List(MID, Name, Address, Programme, Sem, No_of_books_taken)

Add appropriate constraints to the above table and specify

Queries :

a) Display the Book id and name of the students who return the book after 7 days.

b) Find the member's name and title of books issued before a particular date.

c) Find out the name of the members who have taken the maximum number of books from a particular author.

d) Determine students of which programmer utilizes the library in the current instance.

13. A) Give a note on the serializability of schedules.

OR

B) Explain the timestamp ordering protocol.

14. A) Give a note on distributed databases.

OR

B) Explain the parallel database in detail.

15. A) Give a note on decision support systems.

OR

B) Briefly explain :

a) Ontologies.

b) Indexing of documents.

———————