



K23P 1023

Reg. No. :

Name :

II Semester M.C.A. Degree (C.B.S.S. – Reg./Supple./Imp.)

Examination, May 2023

(2017 Admission Onwards)

MCA2C03 : DATABASE MANAGEMENT SYSTEMS

Time : 3 Hours

Max. Marks : 60

SECTION – A

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

1. Explain weak entity types in ER model with an example.
2. Explain the network model of DBMS.
3. Give the basic syntax for declaring a function in PostgreSQL.
4. Explain how to create a view with syntax and example.
5. Explain commit point of a transaction.
6. What is a serial schedule ?
7. Explain I/O parallelism.
8. Explain distributed one phase commit protocol.
9. What is a data warehouse ?
10. What are synonyms ? Give example.

(10×2=20)

SECTION – B

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

11. a) Explain the advantages of database system over file systems.

OR

- b) Explain 3NF, BCNF, 4NF and 5NF with examples.

P.T.O.



12. a) Explain the different kinds of joins with syntax and examples.

OR

- b) i) Create DEPT table with the following structure (DEPTNO, DNAME, LOC)
- ii) EMP table with the following fields (EMPNO, ENAME, JOB, DEPTNO, SAL) Allow NULL for all columns except ENAME and JOB.
- iii) Update the emp table to set the salary of all employees to Rs. 15,000/ who are working as Manager.
- iv) Delete only those who are working as Clerk.
- v) Select the details of all employees whose name begin with S.
- vi) List the records in the emp table order by salary in descending order.
- vii) Display deptno from the table employee avoiding the duplicated values.
- viii) List the empno, empname, deptnames in which all employees are working.

13. a) Explain different lock based concurrency control.

OR

b) Explain various transaction states.

14. a) Explain homogeneous and heterogeneous distributed databases.

OR

b) Explain distributed timestamp concurrency control.

15. a) Explain the relevance ranking using terms.

OR

b) Explain indexing of documents.

(5×8=40)