**DECEMBER 2022** **P/ID 16303/PIT1C**

Time : Three hours Maximum : 80 marks

PART A — ($10 \times 2 = 20$ marks)

Answer any TEN questions.

1. Define database management system and its application.

2. Discuss about Data Manipulation language.

3. What is an entity relationship model?

4. How can you alter and destroy tables?

5. Define outer join and list its types.

6. Define Indexed Sequential Access Method.

7. Define static Hashing.

8. Define recoverable schedules.

9. Define timestamp based protocol.

10. Define Log Based recovery.

11. What is homogeneous distributed database?

12. Write two responsibilities of database administrator.

PART B — (5 × 6 = 30 marks)

Answer any FIVE questions.

13. Discuss about the Concept Design with the ER Model.

14. Illustrate Group by and Having clauses with examples.

15. Write in detail about hash based indexing and Tree based indexing.

16. How the records are represented and organized in files? Explain with suitable example.

17. Write about immediate update and deferred update recovery techniques.

18. Give some features of distributed versus centralized database.

19. Discuss different types of aggregate operators with examples in SQL.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

20. Write SQL syntax for creating table EMP (EMPNO, ENAME SALARY, DOS). Write SQL query to insert two rows in table, delete one row from table, update salary and view whole table.

21. What do you mean by Normalization? Explain 2NF, 3NF and BCNF with a suitable example.

22. Explain ACID properties of transaction management.

23. Demonstrate searching a given element in B+ trees? Explain with example.

24. Why we need to have distributed databases, and distinguish the features of distributed databases with centralized databases.

———————