

PGDCA II SEM
Assignment Question
Relational Database Management System (Oracle)

Attempt any 10 questions.

1. What is DBMS? Explain its architecture?
2. What is a database language? Define its different types of languages?
3. What is data model? Explain the Entity-Relationship mode?
4. What is distributed database system? Define the functions of distributed database system?
5. What is ODBC? Define its Components and features?
6. What is a relationship in ER modeling? Draw a simple ER diagram for a university database (students, courses, instructors).
7. What is the difference between primary key and foreign key?
8. Define generalization and specialization?
9. How do you represent a many-to-many relationship in a relational schema?
10. Introduce UML (Unified Modeling Language) and its relevance to database design.
11. What is SQL? Write a SQL query to insert, delete, update and select record into the "Employees" table.
12. What is the purpose of PRIMARY KEY and FOREIGN KEY constraints?
13. What is a CHECK constraint and UNIQUE constraint? Provide an example.
14. What is an embedded query language? Provide examples.
15. Write a SQL query that joins two tables (e.g., "Employees" and "Departments").
16. What is normalization in database design? Define 1NF, 2NF, and 3NF with examples.
17. Define functional dependency and provide an example.
18. Define are multi-valued dependencies?
19. What is file organization for relational tables?
20. What are some common pitfalls in database design?
21. Define parsing, translation, optimization, and evaluation in query processing.
22. Define domain constraints and referential integrity.
23. What are some common security threats to databases?
24. What is database integrity, and how is it ensured?
25. What is database recovery, and why is it important?