# SHIVAJI COLLEGE, UNIVERSITY OF DELHI
## DEPARTMENT OF COMPUTER SCIENCE
## INTERNAL ASSIGNMENT/PROJECTS/PRESENTATIONS
### (Academic Year 2023-24)

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| Name of the Course | : GE-3 | Semester | : III |
| Name of the Paper | : Database Management System | Maximum Marks | : 24 |
| Faculty Name | : K.K.S. Gautam | Last Date of Submission: | 27.09.2023 |

1. Who is a database administrator? What are the various responsibilities of a DBA?
2. Explain the three-level architecture of DBMS with the help of an example. Mention its advantages also.
3. What is data independence and why is it important? What is the difference between logical and physical data independence?
4. What is database schema? Explain with the help of an example.
5. Define the term data model. Explain different types of data models.
6. Write a short note on DDL & DML with example.
7. What is an E-R model? What are its advantages?
8. Define the term entity. What is the difference between strong entity and weak entity?
9. Explain the various types of attributes example.
10. Differentiate between a super key, a candidate key, primary key and foreign key.
11. Define the term relationship. Illustrate the difference between relationship type and relationship instance.
12. Discuss the difference between specialization and generalization with the help of an example.
13. Design an E-R diagram form an IT training group database that will meet information needs for its training program.
14. Discuss the E-R diagram notations with example.
15. Design an E-R diagram for the online book database.
16. Design an E-R diagram for a company database.
17. Design an E-R diagram for a Bank database having customer, loan, account, employee & branch entity types.
18. What is SQL? What are the two major category of SQL commands? Explain them.
19. What is data type of SQL? What are the various data types supported by standard SQL?
20. What is the use of constraints? What are the different types of constraints that can be specified? Explain with examples.
21. Which operator of SQL is used to specify string pattern in the queries? Explain in details with examples.
22. What is SQL? Explain SQL architecture also.
23. What are the Anomalies in DBMS? How to avoid anomalies?
24. Explain the term Domains, Attributes, Tuples, and Relations data model.

**Faculty Signature:**