

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

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:	30.11.2023

- Q1 What are various components of Database System? Explain in detail.
- Q2. What do you mean by data models? Explain network, hierarchical and relational model in detail.
- Q3. Explain various levels of Data abstraction in database system?
- Q4. What do you mean by database? What is the purpose of a database system? Explain.
- Q5. What do you mean by DBMS? Explain its functioning.
- Q6. Explain architecture of DBMS and its advantages? state two main disadvantages of DBMS?
- Q7. What is DBA? What are major responsibilities of DBA and database designers?
- Q8. What are problems with traditional file processing system? How they are removed in database system? Explain
- Q9. What do you mean by Entity-Relationship Diagram? Explain
- Q10.Explain the various terms of an E-R model and how are they represented in an E-R model?
- Q11.What is meant by term relationship between entities? Explain the different types of relationships that can exist with examples?
- Q12.Explain the concept of dependent entities? give example.
- Q13.What do you mean by mapping cardinalities? Explain various type of cardinalities.
- Q14.What is difference between total and partial participation? Explain.
- Q15.What is the difference b/w single and multivalued attributes? Explain.
- Q16.Explain the concept of participation constraints?
- Q17.Discuss the various update operation on relation and types of integrity constraints that must be checked for each update operation?
- Q18.Discuss the various types of join operations? Why are these joins required?
- Q19.What do you mean by normalization? Explain.
- Q20.What do you mean by BCNF? Why it is used and how it differs from 3 NF?

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Q21. Describe the three-level architecture of DBMS? Also explain its importance in a database environment.

Q21. Discuss concept of database language and interfaces.

Q22. Give the various advantages and disadvantages of the network model. How it differs from relational model?

Q23. What is relationship? What are various types of relationship? Explain with example.

Q24. Explain the Codd's Rule in detail.

Q25. What do you mean by RDBMS? What are its characteristics?

Q26. Explain Entity integrity and Referential integrity in detail.

Q27. What is the difference between DBMS and RDBMS? Which of them is more suitable?

Q28. What is relational algebra? Discuss the various operations of relational algebra.

Q29. Describe the different types of relational calculus in detail.

Q30. What is relational calculus? Differentiate relational algebra and relational calculus.

Q31. What do you mean by Null values? Explain with suitable examples.

Q32. Why normalization needed? What are its disadvantages?

Q33. Discuss the various normal form in normalization with suitable examples.

Q34. Define term anomalies.

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