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**SIVS 207 A-2K12**  
**B.Sc. IVth Semester Degree Examination**  
**Computer Science**  
**Database Management System**  
**Paper - 401**

Time : 3 Hours

Maximum Marks : 80

**Section - A**

**I. Answer all the questions.**

1. What is mapping? (1×15=15)
2. Who proposed Normalization?
3. What is system log?
4. Define Domains of attributes
5. Which set operators used in SQL?
6. What is BCNF?
7. Define entity type.
8. What is a database system?
9. What is deductive database?
10. What is dirty read?
11. Define dead lock
12. SQL stands for
13. Define data abstraction
14. Expand VDL
15. Define Referential Integrity.

Section - B

II. Answer any five questions :

(5×5=25)

16. Explain three - schema Architecture with diagram.
17. What are the three commands used to modify the database? Explain any two with examples.
18. Why are many nulls in a relation considered bad? Justify
19. Write a short note on relational data model
20. What is join? Explain different types of joins.
21. Explain commit point of a transaction.
22. Define the following :
  - a) Database authorization
  - b) Access control
  - c) Data encryption
  - d) Database audit.

Section - C

III. Answer any four questions.

(4×10=40)

23. What are naming conventions used for ER-Schema diagram? Discuss.
24. What are the different phases of database design process? Explain.
25. Explain multivalued dependencies and fourth normal form.
26. Discuss all DML and DCL commands with syntax and example.
27. What is relational algebra? Explain any two basic operations with examples.
28. Discuss various database security issues.