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**SIVS 191 A-2K13**

**B.Sc. IVth Semester Degree Examination**

**Computer Science**

**(Data Base Management System)**

**Paper - CS - 401**

Time : 3 Hours

Maximum Marks : 80

**Instructions to Candidates.**

*Section B and C answer should be descriptive type.*

**Section - A**

**I. Answer all.**

**(1×15= 15)**

- 1) What is a database?
- 2) What is data model?
- 3) Define entity.
- 4) What is a tuple?
- 5) What is Normalization?
- 6) What is foreign key?
- 7) Define degree of relation
- 8) What is encryption?
- 9) Mention any two DBMS packages
- 10) What is relational schema?
- 11) Define data fragmentation
- 12) Write syntax for DELETE command
- 13) Write an Example for Union Set operation
- 14) What is 1NF?
- 15) Define database security.



**Section - B**

**II. Answer any five**

**(5×5= 25)**

- 16) With a neat labelled diagram explain the three - level architecture of DBMS
- 17) Explain BCNF
- 18) Explain the relational model concepts.
- 19) What is E-R model? Explain
- 20) Explain concurrency control techniques.
- 21) Explain 4NF.
- 22) Explain DDL and DML statements with example.

**Section - C**

**III. Answer any four**

**(10×4= 40)**

- 23) Discuss advantages and disadvantages of DBMS.
- 24) Explain the following SQL commands.
  - a) CREATE
  - b) INSERT
  - c) DELETE
  - d) ALTER
  - e) UPDATE
- 25) What are weak entities? Explain.
- 26) Explain the notations used by the designers in ER diagram in detail.
- 27) Explain database security and authorization
- 28) Explain domain relational calculus in detail.