



II Semester B.C.A. Examination, June/July 2025
(NEP Scheme)
COMPUTER APPLICATIONS
Paper – 2.3 : Database Management Systems

Time : 2½ Hours

Max. Marks : 60

Instruction : Answer *all* the questions.

PART – A

I. Answer **any four** questions. **Each** question carries **two** marks. **(4×2=8)**

- 1) What is database ? List few applications of database.
- 2) Define Attribute and Entity.
- 3) What is Primary Key ? Give an example.
- 4) What is primary and secondary storage ?
- 5) What is cascading delete ?
- 6) What are insertion and delete anomalies ?

PART – B

II. Answer **any four** questions. **Each** question carries **five** marks. **(4×5=20)**

- 7) Write a note on functions of DBMS.
- 8) What is ER diagram ? Explain different notations used in database schema diagram.
- 9) Explain different states of transaction with a neat diagram.
- 10) Discuss Aggregate functions with syntax and examples.
- 11) Write a note on SELECT and PROJECT operators in DBMS.
- 12) Explain TCL (COMMIT, ROLLBACK, SAVEPOINT) with example.

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PART – C

III. Answer **any four** questions. **Each** question carries **eight** marks. **(4×8=32)**

- 13) Define data model. Explain different data model with example.
 - 14) Write a note on types of Join.
 - 15) Define normalization. Explain 1NF, 2NF, 3NF with example.
 - 16) Create two tables and perform UNION and INTERSECTION operations.
 - a) Create table student 1, student 2.
 - b) Enter five tuples into each file.
 - c) Display all the tuples from table.
 - d) Perform UNION and INTERSECTION operations.
 - 17) Explain :
 - a) Primary key
 - b) Foreign key
 - c) Candidate key
 - d) Super key with examples.
 - 18) Discuss different relational algebra operations with example.
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