



K21U 0867

Reg. No. : .....

Name : .....

IV Semester B.Sc. Degree (CBCSS – Sup./Imp.) Examination, April 2021  
(2014 – '18 Admissions)

**GENERAL COURSE IN COMPUTER SCIENCE**  
**4A13CSC : Database Management System**

Time : 3 Hours

Max. Marks : 40

SECTION – A

1. **One** word answer : **(8×0.5=4)**
- a) The overall design of the database is called \_\_\_\_\_
  - b) \_\_\_\_\_ is a collection of the entities of the same type.
  - c) The key that uniquely identifies each record is called \_\_\_\_\_
  - d) Write the SQL statement used to remove a table from the database.
  - e) The full form of ACID is \_\_\_\_\_
  - f) The tuple relational calculus is a \_\_\_\_\_ query language.
  - g) A domain is \_\_\_\_\_ if elements of the domain are considered to be indivisible units.
  - h) A \_\_\_\_\_ is a virtual table based on the result-set of an SQL statement.

SECTION – B

Write short notes on **any seven** of the following questions. **(7×2=14)**

- 2. Write about the functionalities of storage manager.
- 3. Narrate the concept of weak entity set.
- 4. What is the main difference between UNION and UNION ALL ?
- 5. Which are the different levels of abstraction in the DBMS ?
- 6. Define functional dependency.
- 7. What is meant by referential integrity ?

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8. Write the syntax of Alter table command.
9. State the difference between having and where clause.
10. What is domain relational calculus ?
11. Differentiate char and varchar.

SECTION – C

Answer **any four** of the following questions.

(4×3=12)

12. Describe the different types of joins in the SQL.
13. Briefly explain Third Normal Form.
14. Write down the functionalities of DBA.
15. Explain DCL.
16. Give details about tuple relational calculus.
17. Elaborate on Triggers in SQL.

SECTION – D

Answer an essay on **any two** of the following questions.

(2×5=10)

18. Discuss the advantages of DBMS over traditional file processing system.
  19. Write SQL queries to perform the following operations.
    - a) Print all worker details from the WORKER table in the ascending order of FIRST\_NAME.
    - b) Print the details of the workers whose SALARY lies between 10000 and 50000.
    - c) Fetch the count of workers employed in the Department "Sales".
    - d) Print the WORKER\_ID, NAME and ADDRESS of all workers whose name starts with the letter G.
    - e) Show the current date and time.
  20. Write an essay on Extended ER features with examples.
  21. Explain the fundamental operations in relational algebra with example.
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