



K20U 0867

Reg. No. : .....

Name : .....

IV Semester B.Sc. Degree (CBCSS - Reg./Sup./Imp.) Examination, April 2020  
(2014 Admn. Onwards)

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

Time : 3 Hours

Max. Marks : 40

SECTION – A

1. **One** word answer : (8×½=4)
- a) Functional Dependencies are the types of constraints that are based on
  - b) \_\_\_\_\_ is the ability to modify the physical schema without causing application programs to be rewritten.
  - c) The keyword \_\_\_\_\_ is used with select clause, in order to eliminate duplicates.
  - d) The \_\_\_\_\_ operation in relational algebra returns its argument relation, with certain attributes left out.
  - e) What type of join is needed when you wish to include rows that do not have matching values ?
  - f) The total participation by entities is represented in E-R diagram as
  - g) Write the SQL query to display the average salary of employees from the Employee table.
  - h) The \_\_\_\_\_ subsystem compiles and executes DDL and DML statements.

SECTION – B

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

- 2. What is DML ? Which are the two types of DML ?
- 3. Define weak entity set.

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4. When can we say that a database table is in 1NF ?
5. Which are the different levels of abstraction in the DBMS ?
6. What is referential integrity ?
7. How is the pattern matching done in the SQL ?
8. What is meant by trigger ?
9. State the purpose of Grant command in SQL.
10. Give the formal definition of tuple relational calculus.
11. Define super key, candidate key and primary key.

SECTION – C

Answer **any four** of the following questions : **(4x3=12)**

12. Write about Atomicity and Integrity problems in conventional file processing systems.
13. Describe specialization and generalization in ER model.
14. Explain set operations in SQL.
15. What is a view ? Clarify with an example.
16. Give details about select, project and rename operation in relational algebra.
17. What are the differences between DROP, TRUNCATE and DELETE commands ?

SECTION – D

Answer an essay on **any two** of the following questions : **(2x5=10)**

18. What are different types of joins in SQL ? Write examples.
  19. Explain relational data model and the structure of a relational database.
  20. Write an essay on Database users and DBA.
  21. Elaborate on 3NF and BCNF.
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