



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)

- Functional Dependencies are the types of constraints that are based on
- _____ is the ability to modify the physical schema without causing application programs to be rewritten.
- The keyword _____ is used with select clause, in order to eliminate duplicates.
- The _____ operation in relational algebra returns its argument relation, with certain attributes left out.
- What type of join is needed when you wish to include rows that do not have matching values ?
- The total participation by entities is represented in E-R diagram as
- Write the SQL query to display the average salary of employees from the Employee table.
- The _____ subsystem compiles and executes DDL and DML statements.

SECTION – B

Write short notes on **any seven** of the following questions :

(7×2=14)

- What is DML ? Which are the two types of DML ?
- 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 : (4×3=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 : (2×5=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.