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

Max. Marks : 40

Time : 3 Hours

SECTION – A

(8×½=4)

1. **One** word answer :
   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 : **(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.
