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Total No. of Pages : 02

Total No. of Questions : 07

BCA (Sem.-4)
DATABASE MANAGEMENT SYSTEMS
Subject Code : UGCA1922
M.Code : 79726
Date of Examination : 15-12-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY** consisting of TEN questions carrying TWO marks each.
2. **SECTION-B contains SIX** questions carrying TEN marks each and students have to attempt any FOUR questions.

SECTION-A

1. Write briefly :

- a) Define database recovery.
- b) What is JOIN? How many tables can you join on?
- c) Why 4NF is a normal form more desirable than BCNF?
- d) What is DKNF?
- e) Explain the concept database security.
- f) Compare the deferred and immediate-modification versions of the log-based recovery scheme.
- g) Explain the data model which are used in DBMS.
- h) What is the role of data independence in DBMS?
- i) Explain types of integrity constraints in SQL.
- j) What are database Triggers?

SECTION - B

2. Explain 3NF and BCNF normal forms with the help of suitable example. Given the following relation:

A #	Aname	Titled	Royalty
A1	John	T1	300
A2	Tom	T2	400

Suppose each Author's name is unique. In the above relation keys are the (A#, Titled) and (Aname, Titled). Is it in BCNF? Why?

3. Explain 3- tier architecture of DBMS. Describe the problems with the traditional two-tier architecture and discuss how these problems were overcome with the three-tier architecture.
4. What are different statements under DDL, DML, DCL? Explain any three of all its types with suitable example.
5. Write fundamental of writing a SQL query. In terms of SQL, what is the difference between a subquery and a join? Under what circumstances would you not be able to use a subquery?
6. Write and explain the types of known keys. Under what circumstances, we will use foreign key? Give an example.
7. Explain what is meant by a DDBMS, and discuss the motivation in providing such a system. Discuss the advantages and disadvantages of a DDBMS.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.