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BCA (Sem.-4)

DATABASE MANAGEMENT SYSTEMS

Subject Code : UGCA1922

M.Code : 79726

Date of Examination : 07-07-22

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 :

- How to sort the data in schema?
- What is the role of integrity constraints?
- What is the difference between a key and a super key?
- What is the difference between specialization and generalization?
- Define user defined functions in detail with example in SQL.
- Explain the concept recovery.
- What is an unsafe query? Give an example.
- Under what conditions must a foreign key not be null?
- What is log? How it is maintained?
- Explain the terms : primary key and candidate key.

SECTION-B

2. What do you understand by Data constraints in SQL? Explain its various types with the help of examples.
3. Explain Data modelling in database. Why would you choose a database system instead of simply storing data in operating system files?
4. Explain, what is meant by a DDBMS, and discuss the motivation in providing such a system. Discuss the advantages and disadvantages of a DDBMS.
5. What is normalization? Compute the closure of the following set F of functional dependencies for relation schema $R = (A, B, C, D, E)$. $A \rightarrow BC$, $CD \rightarrow E$, $B \rightarrow D$, $E \rightarrow A$. List the candidate keys for R.
6. Explain 3-level architecture of DBMS. Does the relational model provide physical and logical data independence? Explain.
7. Explain various types of JOINS with the help of example. How many rows would a two-table join produce if one table had 50,000 rows and the other had 100,000? What is difference between DELETE & TRUNCATE commands?

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.