

Roll No.

Total No. of Pages : 02

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B.Sc. (IT) (Sem.-2)

DATABASE MANAGEMENT SYSTEMS

Subject Code : UGCA-1922

M.Code : 77654

Date of Examination : 13-12-22

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. Answer the following :**

- a. Define DBMS
- b. What is a view level?
- c. State 1 NF
- d. What is meaning of functional dependence $x \rightarrow y$
- e. Difference between alter and update.
- f. What is entity integrity Constraint?
- g. Define view serializability.
- h. What is a distributed database?
- i. Define self-join.
- j. Define atomicity.

SECTION-B

2. What is the need of DBMS. Explain the three-level architecture of DBMS.
3. Define Normalization. Explain 3NF, 4NF and BCNF with suitable example.
4. Discuss the different types of statements in RDMBS. Write at least one example of each type of statement.
5. Discuss the following with the help of any suitable example.
 - a. Group By vs Order By Clause
 - b. ER Diagrams.
6. What is the concept of log-based recovery? Discuss the two approaches for database modifications with the help of a suitable example.
7. What is the difference between authorization and authentication in DBMS? How different security levels in DBMS helps in achieving security.

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