

Roll No.

Total No. of Pages : 02

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**BCA (2014 to 2018) (Sem.-4)**  
**DATABASE MANAGEMENT SYSTEMS**

**Subject Code : BSBC-404**

**M.Code : 10069**

**Date of Examination : 20-12-22**

**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 a student has to attempt any **FOUR** questions.

**SECTION-A**

**1. Answer briefly :**

- a) What are the objectives of DBMS?
- b) What are the security threats to database?
- c) Differentiate between strong and weak entity.
- d) Define database recovery.
- e) What are primary key, secondary key and candidate key?
- f) What is the difference between cardinality and degree of a relation?
- g) Discuss Join concept with the help of suitable example.
- h) What is the meaning of integrity and accuracy in Database?
- i) What is an ER diagram?
- j) What is the difference between authentication and authorization?

## SECTION-B

2. How the network model is a superset of hierarchical model? Explain with a suitable example.
3. What is normalization? Discuss the first, second, third and BCNF normal form.
4. **Differentiate between the following :**
  - a) DDL and DML
  - b) Generalization and Aggregation
5. Discuss in detail the design of distributed database with the help of suitable example.
6. Compare network, hierarchical and relational model in detail.
7.
  - a) Explain the responsibilities of DBA.
  - b) Differentiate between Physical and Logical independencies.

**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.**