

Roll No.

Total No. of Pages : 02

Total No. of Questions : 07

BCA/DEP (Sem.-4)
DATABASE MANAGEMENT SYSTEMS

Subject Code : BSBC-404

M.Code. : 10069

Date of Examination : 13-07-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION 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 do you mean by mapping cardinalities? Explain various types of cardinalities.
- b. Describe Data Replication.
- c. What are the various components of a database system?
- d. What is the difference between the strong entity set and weak entity set?
- e. What are the major functions of a Database Administrator?
- f. What do you mean by single-valued and multi-valued attributes?
- g. What is the purpose of check constraint?
- h. What do you mean by redundancy & how can it be avoided?
- i. What do you understand by a Distributed Database?
- j. Differentiate between a candidate key and a super key.

SECTION-B

2. What is a Relational Model? Compare and contrast it with Network and Hierarchical Models.
3. Differentiate between Data Base instance and Data Base Schema? Explain Three-Schema Data Base architecture in detail.
4. What is Relational Calculus? What is the difference between tuple relational calculus and domain relational calculus? Explain with the help of suitable examples.
5. What is Data Base Security? Explain Discretionary and Mandatory Access Control in detail.
6. What do you mean by Normalization? What do you mean by Multi-valued and Join Dependency. Also, explain 4th and 5th Normal forms with the help of examples.
7. What is Serializability with respect to transactions? Explain in detail about the Conflict & View Serializable schedules?

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.