

Roll No.

Total No. of Pages : 02

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M.Sc. (Computer Science) (2019 & Onwards) (Sem.–1)

DATABASE MANAGEMENT SYSTEM

Subject Code : MSC-103

M.Code : 70889

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students has to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.

SECTION-A

1. What is file oriented approach? How it is different from database approach? Explain.
2. Draw and explain three level architecture of the database system.

SECTION-B

3. What is relational data model? Discuss its merits and demerits.
4. What is entity relationship model? What is its significance? Explain with example.

SECTION-C

5. What is normalization? What are its objectives? Explain 1st, 2nd and 3rd normal forms by taking suitable examples.
6. What is database integrity? Discuss entity and referential integrity rules.

SECTION-D

7. Explain the following :
 - a) Concurrency control
 - b) Database security
8. What are various reasons of database failure? Explain how database can be recovered.

SECTION-E

9. Write briefly :

- a) Define DBMS. List its merits.
- b) What is BCNF?
- c) Define Candidate and composite keys.
- d) What are various DML statements?
- e) Define Union Compatibility.
- f) List various limitations of network data model.
- g) What is data independence?
- h) Who is DBA? List various responsibilities of DBA.
- i) What are distributed databases?
- j) What are various features of relational algebra?

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.