Reg. No. : ....

Name : ....

I Semester Master of Computer Application (M.C.A.) Degree
(Reg./Supple.Imp.) Examination, November - 2019
(2014 Admission Onwards)
MCA 1C05 : DATABASE MANAGEMENT SYSTEMS

Time : 3 Hours

Max. Marks : 80

SECTION - A

Answer any **Ten** questions. Each question carries **Three** marks.(10×3=30)

1. Define the two levels of data independence.

2. List out the database system applications.

3. What are the feature of DML?

4. Define the term super key and candidate key with an example.

5. Differentiate between super class and sub class.

6. Define specialization. Give example.

7. Compare and contrast between first normal form and third normal form.

8. Define trivial dependency with example.

9. List out the different set operations with example.

10. Define the terms

    a) semantics

    b) operators

11. What is IN operator ? Give example.

12. Differentiate between tables and views.

P.T.O.

SECTION - B

Answer **ALL** questions. Each carries **Ten** marks. (5×10=50)

13. a) Explain the role of a data base administrator with suitable examples. (10)

(OR)

b) What are the different data models explain the importance of each briefly. (10)

14. a) Construct an ER diagram for university registrar's office. The office maintains data about each class, including the instructor, the enrollment and the time and place of the class meetings. For each student class pair of a grade is recorded. Determine the entities and relationships. (10)

(OR)

b) Disucss the following terms with suitable examples. (10)
   i) Ternary relationship
   ii) Weak entity set
   iii) Grouping
   iv) Aggregation

15. a) Explain about Boyce Codd normal form with suitable examples. (10)

(OR)

b) Describe the concept of functional dependency with an example. (10)

16. a) Discuss in detail operators SELECT, PROJECT, UNION with suitable example. (10)

(OR)

b) Explain the concept of relational algebra with suitable example. (10)

17. a) Explain the structure and aggregate functions of SQL with suitable example. (10)

(OR)

b) Describe in detail the concept of embedded SQL with suitable example. (10)

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