1218

Code : 15CS33T

Register Number

III Semester Diploma Examination, Nov./Dec.-2018

DATABASE MANAGEMENT SYSTEM

Time : 3 Hours] **[Max. Marks : 100**

Instructions : (1) Answer any **six** questions from Part – **A**. (**5** marks each)

(2) Answer any **seven** questions from Part – **B**. (**10** marks each)

PART – A

1. Explain the characteristics of database approach.

2. Differentiate between logical data independence and physical data independence.

3. Explain various DBMS languages.

4. Explain with examples entity integrity constraints.

5. Explain UPDATE and INSERT command with examples.

6. Illustrate first normal form with examples.

7. Define view. How to create it ? Give example.

8. Write a note on system log.

9. Discuss the advantages of distributed computing.

PART – B

10. Explain the DBMS component modules.

11. Explain the insert and delete operations with examples.

12. Design E-R diagram for a company database using suitable entity and relationship.

13. Define the following term with example :
    (a) Entity
    (b) Entity set
    (c) Composite attribute
    (d) Derived attribute
    (e) Multivalued attribute

14. Consider the following schema and write the SQL queries :
    EMPLOYEE (FName, LName, SSN, address, Bdate, Salary, DNo)
    DEPARTMENT (D Name, D Number, MGRSSN)
    (i) Retrieve the date of birth and address of the employee whose name is Mahesh.
    (ii) Retrieve distinct salary of all employees.
    (iii) Retrieve the total number of employees in the company.
    (iv) For each department, retrieve the department number, the number of employers in the department and their average salary.
    (v) Find the sum of salaries of all employees, the maximum salary, the minimum salary and average salary.

15. Explain the different constraints that are violated during UPDATE and DELETE operations.

16. Discuss the informal design guidelines and guidelines for relation schema.

17. Explain 2NF and BCNF, with example.

18. Explain the need for concurrency control.

19. Explain column store and row store with examples.