Register No.: ....   Name: ....

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

FIFTH SEMESTER INTEGRATED M.C.A DEGREE EXAMINATION (S), FEBRUARY 2023
(2020 SCHEME)

Course Code: 20IMCAT305

Course Name: Introduction to RDBMS and SQL

Max. Marks: 60   **Duration: 3 Hours**

PART A
(Answer all questions. Each question carries 3 marks)

1. Which are the different types of databases? Explain.
2. Explain Crow Foot notation with example.
3. Write short note on primary key with an example.
4. Explain database schema.
5. How unique values can be listed in a table?
6. Write short on different special operators in SQL. Give any two examples.
7. Explain partial dependency with example.
8. Explain the concept of equivalence of functional dependencies.
9. What is cursor? Explain with an example.
10. Write short note on functions in SQL with example.

PART B
(Answer one full question from each module, each question carries 6 marks)

MODULE I

11. a) What is a DBMS?   (2)

     b) Explain the different functions of DBMS.   (4)

OR

12. a) Explain the different steps for creating an E-R diagram.   (2)

     b) Draw an E-R diagram for a Library Management System.   (4)

MODULE II

13. Explain the different types of integrity constraints with example.   (6)

OR

14. Elucidate Codd's relational database rules.   (6)

MODULE III

15. Explain the three SQL date functions and SQL aggregate functions with example.   (6)

OR

16. Consider a table employee with attributes (*empno,ename,salary*).
    Write SQL queries to
    - (i) Create the table employee and set *empno* as primary key.
    - (ii) List the name of employee whose *ename* starts with 'A'.
    - (iii) List the details of employee whose *salary* is between 2000 and 4000.   (6)
    - (iv) Edit the salary of employee as 50000 whose *empno* is 101.
    - (v) Check how many employees have *salary* greater than 5000.
    - (vi) Find the name of employee who is having minimum salary.

MODULE IV

17. Explain Armstrong's axioms of functional dependency.   (6)

OR

18. a) What is Normalization?   (2)

    b) Explain BCNF with suitable example.   (4)

MODULE V

19. Explain different relational set operators in SQL.   (6)

OR

20. a) What is procedure in SQL?   (2)

    b) Write a SQL procedure to print the prime numbers from 1 to 1000.   (4)

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