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 2024
(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. Differentiate generalization and specialization.
2. Write any three DBMS functions.
3. What is degree and cardinality? Give example.
4. Write short notes on integrity constraints.
5. What are transaction control commands in SQL?
6. What is ORDER BY Clause? Give example.
7. Write short note on partial dependency with example.
8. With example, explain BCNF.
9. Comment on views in SQL.
10. What is a right join? Explain its syntax with an example.

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

MODULE I

11. Explain about entity-relationship model. Draw E-R Diagram for hospital management system. (6)

OR

12. Write short note on the problems of file system data processing. (6)

MODULE II

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

OR

14. Explain the relationships within relational database. (6)

MODULE III

15.   a)   Write short note on SQL aggregate functions.   (3)
       b)   Explain any three SQL date functions with example.   (3)

OR

16.   Consider a table Employee with attributes (*empno, ename, salary, department*). Write query to

(a) Create a table, set *empno* as primary key and set *ename* as not null.

(b) Write an SQL query to print all employee details from the Employee table order by *salary* descending.

(c) Write an SQL query to print details of the employees whose *ename* ends with 'a'.   (6)

(d) Write an SQL query to print details of the employees whose salary lies between 10000 and 50000.

(e) Write an SQL query to fetch the count of employees working in the department 'Computer'.

(f) Find the name of employee who is having maximum salary.

MODULE IV

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

OR

18.   What is normalization? Write notes on 1NF, 2NF and 3NF with suitable example.   (6)

MODULE V

19.   Discuss the different types of joins in SQL with examples.   (6)

OR

20.   Write short note on SQL procedures with example.   (6)

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