

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086
(For candidates admitted from the academic year 2023 – 2024)

M.Sc. DEGREE EXAMINATION, APRIL 2024
INFORMATION TECHNOLOGY
SECOND SEMESTER

COURSE : MAJOR CORE
PAPER : DATABASE MANAGEMENT SYSTEMS
SUBJECT CODE : 23CS/PC/DB25
TIME : 1 ½ HOURS **MAX. MARKS: 50**

Q. No.	SECTION A Answer all the questions (6 X 5 = 30)	CO	KL
1.	a) What is the role of Database users and administrators in a database system? (OR) b) What are keys in the context of relational databases?	CO1	K1
2.	a) Summarize the aggregate functions used in SQL. Give an example. (OR) b) Illustrate the importance of authorization in SQL with an example.	CO2	K2
3.	a) Make use of Entity-Relationship (E-R) Model and explain its usage in database design. (OR) b) Discuss about atomic domains and their importance in First Normal Form (1NF).	CO3	K3
4.	a) Construct a PL/SQL with predefined exceptions and explain. (OR) b) Identify the differences between Implicit and Explicit Cursors.	CO3	K3
5.	a) Explicate the different types of triggers in SQL. (OR) b) Analyze how Key/Value stores in the context of NoSQL \ databases.	CO4	K4
6.	a) Explicate the concept of Integrity Constraints in SQL. (OR) b) Examine how relational operations contribute to database manipulation.	CO4	K4
Q. No.	SECTION B Answer all the questions (2 x 10=20)	CO	KL
7.	a) Organize the structure of relational databases and its components. (OR) b) Identify the concept of Extended Relational-Algebra operations and explain their significance.	CO3	K3
8.	a) Examine the process of decomposition using Multivalued Dependencies and its significance in relational database design. (OR) b) Analyze a case study using MongoDB as a NoSQL database.	CO4	K4