

Reg No:.....

K25FY2412 C

Name :.....

Second Semester FYUGP Computer Science Examination
APRIL 2025 (2024 Admission onwards)
KU2DSCCAP109 (INTRODUCTION TO DATABASE
MANAGEMENT SYSTEM)
(DATE OF EXAM: 2-5-2025)

Time : 90 min

Maximum Marks : 50

Part A (Answer any 6 questions. Each carries 2 marks)

1. What is a DBMS? 2
2. What is a domain in a relational database? Give an example. 2
3. What are the main components of a simplified DBMS structure? 2
4. What is a foreign key, and how does it relate two tables in a database? 2
5. What is the purpose of selection operation in relational algebra? 2
6. Define data integrity? 2
7. List any two data types used in SQL. 2
8. What are arithmetic operators in SQL? Give an example. 2

Part B (Answer any 4 questions. Each carries 6 marks)

9. How are databases used in banking and Healthcare sectors? 6
10. What is View? Explain it. 6
11. Draw a simple E-R diagram for a "Student" and "Course" database. Explain the relationships and attributes involved. 6
12. Compare union and intersection operation in relational algebra with suitable example 6
13. Explain integrity Constraints ? 6
14. Write a SQL query to display the names of customers whose names start with the letter 'J' or 'K'. Use the LIKE operator and the OR logical operator? 6

Part C (Answer any 1 question(s). Each carries 14 marks)

15. A company wants to modify its database structure by adding a new column for employee email addresses. Write SQL queries to: (a) Create an Employee table. (b) Add a new column for email. (c) Drop an unnecessary column. 14
16. How does the GROUP BY clause work with aggregate functions? Write an SQL query to display the total, average, highest, and lowest salary per department from an employee table. 14