PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2023
(Third Semester)

Branch - **COMPUTER APPLICATIONS**

RELATIONAL DATABASE MANAGEMENT SYSTEMS

Time: Three Hours Maximum: 50 Marks

SECTION-A (5 Marks)

Answer **ALL** questions
ALL questions carry **EQUAL** marks (5 x 1 = 5)

1. Using which language can a user request information from a database?
   a. Compiler b. Query c. Relational d. Structural

2. The attribute name could be structured as an attribute consisting of first name, middle initial, and last name. This type of attribute is called
   a. Simple attribute b. Composite attribute c. Tuples d. ER model

3. Which one of the following is a procedural language?
   a. Domain relational calculus b. Tuple relational calculus
   c. Relational algebra d. Query language

4. SQL Views are also known as
   a. Simple tables b. Virtual tables c. Complex tables d. Actual tables

5. _____ is a program that performs some common action on database data and also stored in the database.
   a. Stored Procedures b. Triggers
   c. Stored Function d. Constraints

SECTION - B (15 Marks)

Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

6. a. List out the various types of Data Models.
   (OR)
   b. Narrate in detail about the Database Administrators.

Cont....

7. a. Analyze and explain the Weak-Entity Sets in ER diagram.

(OR)

b. State and point out the Reduction to Relational Schemes with suitable example.

8. a. Explain the Unary Relational operations: SELECT and PROJECT.

(OR)

b. Discuss the First and Second Normal Forms.

9. a. Explain in detail about Scheme Change statements in SQL.

(OR)

b. Hypothesize and explain the Basic Retrieval Queries in SQL.

10. a. Indicate: how to process SQL statements with JDBC explain with an example?

(OR)

b. Classify the Database Programming with function calls in CLI with example.

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11. a. Illustrate in detail about the Database Languages.

(OR)

b. Write a detailed note on Entity-Relationship Model.

12. a. Explain about the Unified Modeling Language (UML).

(OR)

b. Justify in detail about the Constraints.

13. a. Describe the Boyce-Codd Normal Form with an example.

(OR)

b. Categorize and develop the additional Relational operations.

14. a. Indicate the SQL Data definition and Data Types with suitable example.

(OR)

b. Write a SQL query to insert data into Tables in SQL server using INSERT statement.

15. a. Explain the Dynamic SQL and SQLJ with an example.

(OR)

b. Locate and identify the Techniques and Issues in Database Programming.

Z-Z-Z END