PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BCA DEGREE EXAMINATION MAY 2024
(Third Semester)

Branch – **COMPUTER APPLICATION**

RELATIONAL DATA BASE 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. When data is stored, maintained and retrieved from multiple tables then special database software are required called _____?
   i) DBMS ii) RDBMS iii) Special DBMS iv) Tuple

2. An _____ is a set of entities of the same type that share the same properties, or attributes
   i) Entity set ii) Attribute set
   iii) Relation set iv) Entity model

3. In the schema (dept name, size) we have relations total inst 2007, total inst 2008. Which dependencies have lead to this relation?
   i) Dept name, year-> size ii) Year-> size
   iii) Dept name-> size iv) size->year

4. SQL stands for
   i) Structured Queue Language ii) Structured Query Language
   iii) Structured Query Lang iv) Simple Query Language

5. The SQL statement:
   SELECT ROUND (65.726, -1) FROM DUAL;
   i) is illegal ii) garbage iii) 726 iv) 70

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

6. a. Analyze about the Transaction Management with an example.
   (OR)
   b. Sketch and explain the purpose of Database Systems.

7. a. Write a note on Mapping Cardinality.
   (OR)
   b. Estimate any Three Extended E-R features in RDBMS.

8. a. State and explain the Examples of Queries in Relational Algebra.
   (OR)
   b. Examine the DIVISION operation in Relational Algebra.

9. a. Determine about the additional features of SQL.
   (OR)
   b. Compare between Assertions and Triggers.

10. a. Justify the Embedded SQL in detail.
    (OR)
    b. Integrate and find the Database Programming with JDBC.

Cont...

SECTION -C (30 Marks)

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

11. a. Describe in detailed about the Database Application.

(OR)

b. Estimate and identify the Database Architecture with neat diagram.

12. a. Discriminate about the E-R Design Issues with example.

(OR)

b. Find out the Overview of the Design process.

13. a. Evaluate and Intimate the General definitions of Second and Third Normal forms.

(OR)

b. Illustrate the Relational Algebra operations from Set Theory.

14. a. Prepare a detailed note on Views in SQL with example.

(OR)

b. Mention how to Specifying Constraints in SQL.

15. a. Write the JDBC program to insert data into database?

(OR)

b. Compute about the Database Stored Procedures and SQL/PSM.

Z-Z-Z END