

**PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)**

**BCA DEGREE EXAMINATION DECEMBER 2025  
(Third Semester)**

Branch – **COMPUTER APPLICATIONS**

**RELATIONAL DATABASE MANAGEMENT SYSTEMS**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (10 × 1 = 10)

| Module No. | Question No. | Question   | K Level | CO  |
|------------|--------------|--|---------|-----|
| 1          | 1            | Which of the following refers the collection of data _____<br>a. datainfo b. database c. datakey d. info                                       | K1      | CO1 |
|            | 2            | The _____ level of abstraction describes how the data are actually stored.<br>a. physical b. logical c. view d. large                          | K2      | CO1 |
| 2          | 3            | What are descriptive properties possessed by each member of an entity set?<br>a. Entities b. Attributes c. primary d. keys                     | K1      | CO2 |
|            | 4            | Each attribute, there is a set of permitted values, called the _____.<br>a. Entity b. attributes c. domain d. names                            | K2      | CO2 |
| 3          | 5            | Which of the following is unary relational operation?<br>a. Union b. Intersection c. Select d. Join  | K1      | CO3 |
|            | 6            | Show which normal form is based on the full functional dependency.<br>a. First b. Second<br>c. Third d. Boyce                                  | K2      | CO3 |
| 4          | 7            | Which of the following includes tables, types, constraints, views, domains and other constructs.<br>a. set b. relation<br>c. elements d. value | K1      | CO4 |
|            | 8            | Show which is not aggregate functions in SQL.<br>a. count b. sum c. add d. avg   | K2      | CO4 |
| 5          | 9            | What is a variable that refers to a single tuple from a query result?<br>a. trigger b. view<br>c. process d. cursor                            | K1      | CO5 |
|            | 10           | JDBC means Java Data _____ Connectivity.<br>a. Basis b. Basic c. Base d. Balance   | K2      | CO5 |

Cont...

**SECTION - B (35 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

| Module No. | Question No. | Question   | K Level | CO  |
|------------|--------------|--|---------|-----|
| 1          | 11.a.        | Explicate purpose of Database systems.               | K2      | CO1 |
|            | (OR)         |  |         |     |
|            | 11.b.        | Enumerate Database languages.                        |         |     |
| 2          | 12.a.        | Draw E-R diagram for a university enterprise.        | K3      | CO2 |
|            | (OR)         |  |         |     |
|            | 12.b.        | Point out mapping cardinality.                       |         |     |
| 3          | 13.a.        | Give examples of queries in relational algebra.      | K3      | CO3 |
|            | (OR)         |  |         |     |
|            | 13.b.        | Identify general definition of second normal form.   |         |     |
| 4          | 14.a.        | List out data types in SQL.                          | K4      | CO4 |
|            | (OR)         |  |         |     |
|            | 14.b.        | Analyze trigger components.                          |         |     |
| 5          | 15.a.        | List out database programming techniques and issues. | K4      | CO5 |
|            | (OR)         |  |         |     |
|            | 15.b.        | Illustrate Embedded SQL with an example.             |         |     |

**SECTION -C (30 Marks)**

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

| Module No. | Question No. | Question  | K Level | CO  |
|------------|--------------|---|---------|-----|
| 1          | 16           | Demonstrate Database.                               | K4      | CO1 |
| 2          | 17           | Illustrate the overview of architecture E-R model.  | K4      | CO2 |
| 3          | 18           | Demonstrate unary and binary relational operations. | K4      | CO3 |
| 4          | 19           | Classify basic queries in SQL with examples.        | K4      | CO4 |
| 5          | 20           | Enumerate JDBC programming steps.                   | K4      | CO5 |

Z-Z-Z

END