PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BCA DEGREE EXAMINATION MAY 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	Does RDBMS have ACID properties? (i)Follows ACID properties (ii)Doesn't follow ACID properties (iii) Depends on the data stored in the database (iv) Can't say	K1	CO1
	2	Infer the correct meaning of a database instance from the options provided. (i)The state of the database system at any given point of time (ii)The entire set of attributes of the Database put together in a single relation (iii) The initial values inserted into the Database immediately after its creation (iv)The logical design of the database systems	K2	CO1
2	3	Which command is used to remove a table from database in SQL? (i)Delete table (ii)Drop table (iii) Erase table (iv) Truncate table	K1	CO2
	4	Classify the given options to identify which one defines an entity set with a primary key. (i) strong entity set (ii) weak entity set (iii) complete entity (iv) none of the above	K2	CO2
3	5	The join operations that do not retain mismatched tuples are called as --- operations. (i) Outer join (ii)natural join (iii) Full outer join (iv)inner join	K1	CO3
	6	Illustrate how tables in Second Normal Form meet the requirements described in the options. (i) Eliminate all hidden dependencies (ii) Eliminate the possibility of insertion anomalies (iii) Have a composite key (iv) Have all non key fields depends on the whole primary key.	K2	CO3
4	7	Constraints can be applied on (i) Column (ii) Table (iii) column & table (iv) None of the above	K1	CO4
	8	Relate the concept of triggers are supported in (i)Delete (ii)Update (iii) Views (iv) All of the mentioned above	K2	CO4
5	9	Which of the following is generate and execute SQL statement at runtime (i)SQL Query (ii)Dynamic SQL (iii)SQL/CLI (iv) Static SQL	K1	CO5

Module No.	Question No.	Question	K Level	CO
5	10	Interpret the meaning of JDBC based on the choices given. (i) Java Database Connectivity (ii) Java Database Community (iii) Javascript DB Community (iv) Java Documentbase Connectivity	K2	CO5

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.	Classify and list out the database system applications in RDBMS.	K2	CO1
		(OR)		
	11.b.	Summarize the overview of Data Administration and illustrate its role		
2	12.a.	Select a relational database schema and develop a diagram that illustrates the mapping constraints.	K3	CO2
		(OR)		
	12.b.	Build the different notations used for modelling data in RDBMS.		
3	13.a.	Build Set theory and its operations with suitable example.	K3	CO3
		(OR)		
	13.b.	Apply the principles of Boyce-Codd Normal Form (BCNF) to a database schema.		
4	14.a.	Simplify the concept of Basic queries in SQL?	K4	CO4
		(OR)		
	14.b.	Classify the different statements used in SQL, and examine how they impact operations.		
5	15.a.	Compare the use of SQLJ with JDBC, distinguishing their approaches to database interaction	K4	CO5
		(OR)		
	15.b.	Analyze the components of SQL database programming and infer how each contributes to effective data management.		

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	Analyze the different types of database languages and infer how they contribute to effective database management.	K4	CO1
2	17	Classify relationships in ER diagrams and compare the impact of different relationship types.	K4	CO2
3	18	Analyze the different types of SQL JOINS and infer how they combine records from multiple tables.	K4	CO3
4	19	Examine and categorize the different types of triggers in a database, explaining each type with suitable examples	K4	CO4
5	20	Compare the JDBC connection process with other database connection methods and distinguish their advantages.	K4	CO5

Z-Z-Z   END