PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2025
(Third Semester)
Branch - COMPUTER SCIENCE WITH DATA ANALYTICS
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	What does the term "schema" refer to in a relational database? a) The design of the database b) The actual data stored c) The query used to retrieve data d) The programming language used	K1	CO1
	2	Which of the following is a type of database user? a) Administrator b) Developer c) End-user d) All of the above	K2	CO1
2	3	What is a functional dependency in the context of database design? a) A relationship between two tables b) A constraint between two attributes c) A type of database schema d) A method of data retrieval	K1	CO2
	4	Which Oracle data type is commonly used to store large text strings? a) VARCHAR b) CHAR c) CLOB d) BLOB	K2	CO2
3	5	Which of the following is a logical operation in SQL? a) AND b) NOT c) OR d) All of the above	K1	CO3
	6	What is the purpose of the GROUP BY clause in SQL? a) To group rows that have the same values in specified columns b) To join multiple tables c) To sort data d) To remove duplicate rows	K2	CO3
4	7	What does PL/SQL stand for? a) Procedural Language for SQL b) Programming Language for SQL c) Programming Language/SQL d) None of the above	K1	CO4
	8	Which of the following is true about Oracle cursors? a) They are used to retrieve multiple rows of data b) They are used to execute stored procedures c) They manage database locks d) They are used to create tables	K2	CO4
5	9	What is a database trigger? a) A rule that automatically performs an action when a specified event occurs b) A query that retrieves data from a table c) A program that executes SQL commands d) A type of stored procedure	K1	CO5
	10	Which type of trigger is activated before a row is inserted into a table? a) BEFORE INSERT . b) AFTER INSERT c) BEFORE DELETE d) AFTER UPDATE	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.	Interpret the concept of a transaction in database management and its importance.	K2	CO1
		(OR)		
	11.b.	Outline the relational databases with non-relational databases.		
2	12.a.	Plan the role of functional dependencies in database decomposition.	K3	CO2
		(OR)		
	12.b.	Develop the basic SQL operations for data manipulation in Oracle.		
3	13.a.	List the role of logical operations in SQL and provide examples of their usage.	K4	CO3
		(OR)		
	13.b.	Illustrate how pattern matching works in SQL using the LIKE operator.		
4	14.a.	Build the syntax and usage of PL/SQL in Oracle databases.	K3	CO4
		(OR)		
	14.b.	Apply the steps involved in granting and revoking permissions in SQL.		
5	15.a.	Demonstrate types of triggers available in a database and their use cases.	K3	CO5
		(OR)		
	15.b.	Outline the process of creating and deleting database triggers.		

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	Enumerate the relational model in databases, covering schema, keys, and relational operations with examples.	K2	CO1
2	17	Demonstrate the concept of normalization with examples, and discuss how it helps in reducing redundancy and maintaining data integrity.	K3	CO2
3	18	Eradicate significance of SQL constraints in ensuring data integrity, and provide examples of commonly used constraints.	K4	CO3
4	19	Elucidate PL/SQL, its syntax, and its role in Oracle databases, including the concept of cursors and transaction management.	K3	CO4
5	20	Elaborate database triggers in detail, including their types, creation, and use cases in real-world applications.	K3	CO5

Z-Z-Z   END