PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BVoc DEGREE EXAMINATION DECEMBER 2025
(Third Semester)

Branch – NETWORKING AND MOBILE APPLICATION

DATABASE DESIGN & DEVELOPMENT

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)
Answer ALL questions

ALL questions carry EQUAL marks $\qquad$ (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	What is a Foreign Key? (a) A key used to uniquely identify each record in a table (b) A key used to partition a database (c) A key that allows duplicate values in a column (d) A key used to link two tables together	K1	CO1
	2	Which of the following is NOT a type of database? (a) Relational (b) Object-oriented (c) NoSQL (d) Network Protocol	K2	CO1
2	3	What is the function of the WHERE clause in SQL? (a) To group records (b) To sort records (c) To filter records based on a condition (d) To join two or more tables	K1	CO2
	4	How do you use subqueries in SQL? (a) By embedding one query inside another (b) By creating temporary tables (c) By joining multiple tables (d) By applying the `GROUP BY` clause	K2	CO2
3	5	Select the correct statement about a Trigger in SQL. (a) A scheduled task that runs automatically (b) A set of SQL statements that automatically execute in response to certain events (c) A procedure that compiles SQL commands (d) A method to retrieve data from the database	K1	CO3
	6	What is the use of a Cursor in PL/SQL? (a) To update records in batches (b) To fetch multiple rows of data one at a time (c) To execute stored procedures (d) To store triggers in a database	K2	CO3
4	7	What is meant by Referential Integrity? (a) Ensuring data in one table matches data in another table (b) Defining how foreign keys are created (c) Ensuring the database structure is normalized (d) Creating relationships between tables using primary keys	K1	CO4
	8	How does normalization help in database design? (a) It reduces redundancy and ensures data integrity (b) It creates relationships between tables (c) It speeds up query performance (d) It allows tables to store more data	K2	CO4
5	9	What does CRUD stand for in MongoDB? (a) Create, Retrieve, Update, Delete (b) Copy, Read, Update, Delete (c) Create, Retrieve, Upgrade, Delete (d) Create, Read, Update, Delete	K1	CO5
	10	How to create a database in MongoDB? (a) Use the `CREATE DATABASE` statement (b) Use the `use` command followed by the database name (c) Use the `db.create()` command (d) Use the `db.init()` command	K2	CO5

SECTION - B (35 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** Marks $\qquad$ (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Summarize the advantages of RDBMS.	K2	CO1
		(OR)		
	11.b.	Explain the key features of RDBMS.		
2	12.a.	Experiment the different types of joins in SQL with examples.	K3	CO2
		(OR)		
	12.b.	Construct an employee table and use GROUP BY Clause to group employees based on specific criteria.		
3	13.a.	Identify the SQL commands for creating and removing a view.	K3	CO3
		(OR)		
	13.b.	Construct a PL/SQL block to demonstrate exception handling.		
4	14.a.	Examine the types of relationships in an ER model with examples.	K4	CO4
		(OR)		
	14.b.	Compare the first and second normal forms with examples.		
5	15.a.	List the usage of MongoDB.	K4	CO5
		(OR)		
	15.b.	Analyze how to perform a query in MongoDB.		

SECTION -C (30 Marks)
Answer **ANY THREE** questions
ALL questions carry **EQUAL** Marks $\qquad$ (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Discuss roles in the database environment.	K4	CO1
2	17	Examine SQL Aggregate functions with detailed examples.	K4	CO2
3	18	Analyze the use cases of PL/SQL and provide practical examples.	K4	CO3
4	19	Contrast the Concepts of Entity-Relationship Modeling with other Data Modeling Techniques using diagrams.	K4	CO4
5	20	Discover and illustrate the CRUD operations in MongoDB with practical examples.	K4	CO5

Z-Z-Z $\qquad$ END