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23CTU312N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2025
(Third Semester)

Branch – **COMPUTER TECHNOLOGY**

DATABASE MANAGEMENT CONCEPTS

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 is the characteristic of a two-tier database architecture? a. Client directly communicates with the database server b. Middle layer exists between client and server c. Supports distributed databases d. Uses a cloud-based infrastructure	K1	CO1
	2	In an ER model, which of the following represents a relationship between two entities? a. Rectangle b. Ellipse c. Diamond d. Line	K2	CO1
2	3	Which of the following is a Data Manipulation Language (DML) command in SQL? a. Select b. Update c. Delete d. Create	K1	CO2
	4	Which of the following is NOT a DML command? a. INSERT b. DELETE c. UPDATE d. CREATE	K2	CO2
3	5	In DBMS, a two-dimensional matrix is typically represented by which structure? a. Tuple b. Relation (Table) c. Column d. Attribute	K1	CO3
	6	Which SQL join returns only the rows where there is a match in both tables? a. LEFT JOIN b. RIGHT JOIN c. INNER JOIN d. FULL OUTER JOIN	K2	CO3
4	7	Which Oracle function is used to return the current system date and time? a. SYSDATE b. CURRENT_DATE c. GETDATE d. NOW	K1	CO3
	8	What type of database is MongoDB? a. Relational Database b. Document-oriented Database c. Key-Value Store d. Graph Database	K2	CO3
5	9	Which data structure does MongoDB use to store data? a. Tables b. Documents c. Rows and Columns d. Graphs	K1	CO4
	10	What is the primary data format used by MongoDB? a. JSON b. XML c. BSON d. CSV	K2	CO4

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.	Outline on database languages.	K2	CO5
		(OR)		
	11.b.	Compare end-users and database administrators in a database environment.		
2	12.a.	Examine the concept of Data Manipulation in databases.	K3	CO5
		(OR)		
	12.b.	Discuss about modifying the structure of a table.		
3	13.a.	Explain the different types of data constraints in SQL with examples.	K3	CO3
		(OR)		
	13.b.	Examine 'where clause' and its uses with example in SQL.		
4	14.a.	Elaborate how to create a stored function?	K4	CO3
		(OR)		
	14.b.	Explain the process of creating a trigger in SQL. Include the basic syntax and an example.		
5	15.a.	Distinguish Mongo DB datatypes.	K4	CO1
		(OR)		
	15.b.	How to create and update documents in Mongo DB? Explain.		

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	Explain database normalization and its importance.	K4	CO1
2	17	Evaluate the removing. deleting, and dropping of tables in SQL with examples.	K4	CO4
3	18	Explain the different types of SQL joins with examples.	K4	CO3
4	19	Explain the advantages of using stored functions in DBMS.	K4	CO2
5	20	Discuss on Mongo DB collections.	K4	CO5

Z-Z-Z END