23CMU312N/23CMU312

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2025
(Third Semester)

Branch – **COMPUTER SCIENCE**

DATABASE MANAGEMENT SYSTEMS

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

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

Question No.	Question	K levels	CO
1.	Which one of the following refers to the "data about data"? a) Directory b) Sub Data c) Meta Data d) Warehouse	K2	CO1
2	Which of the following is not a function of the database? a) Managing stored data b) Manipulating data c) Security for stored data d) Analysing code	K1	CO1
3	Which of the following is generally used for performing tasks like creating the structure of the relations, deleting relation? a) DML b) DDL c) DCL d)TCL	K2	CO2
4	SELECT emp_name FROM department WHERE dept_name LIKE '_____ Computer Science'; In the above-given Query, which of the following can be placed in the Query's blank portion to select the "dept_name" that also contains Computer Science as its ending string? a) & b)_ c)% d)$	K1	CO2
5	Which of the following is not a PL/SQL unit? a) Table b)Type c)Trigger d)Package	K2	CO3
6	Which of the following is TRUE about PL/SQL Trigger? a) When certain conditions are met, a trigger in a database is triggered. b) A trigger is an application executes automatically when an event occurs. c) Both A. and B. d) None of the above	K1	CO3
7	The variables in the triggers are declared using a) – b) @ c) / d) /@	K2	CO4
8	Which of the following is a NoSQL Database Type? a) SQL b) Document databases c)JSON d) All of the above	K1	CO4
9	What does the upsert option do in an update operation in MongoDB? a) Updates an existing document, otherwise does nothing b) Updates all matching documents c) Inserts a new document if no match is found d) Deletes the document if it exists	K2	CO5
10	Which of the following is a key-value pair used to define Graph Nodes and Relationships? a) Relationships b) Nodes c)Property d)Labels	K1	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

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

Question No.	Question	K levels	CO
11	a) Built Level 3 data flow diagram for hotel reservation system. Also explain the components of your diagram	K3	CO1
	(OR)		
	b) Explain notations of relational algebra.		
12	a) Describe group functions in SQL with example.	K2	CO2
	(OR)		
	b) Illustrate DDL statements in SQL with example.		
13	a) Explain procedures and functions in oracle with example.	K3	CO3
	(OR)		
	b) Elaborate cursors in oracle with example.		
14	a) Compare the following: i) SQL vs NoSQL ii) ACID Vs BASE	K5	CO4
	(OR)		
	b) Describe history of NoSQL.		
15	a) List out the features of MongoDb. Also compare terminologies of Mongodb and RDBMS.	K3	CO5
	(OR)		
	b) How will create and delete nodes in graph based databases? Illustrate with example.		

SECTION -C (30 Marks)

Answer ANY THREE questions

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

Question No.	Question	K levels	CO
16	Describe in detail about normalization of a relation with example.	K4	CO1
17	Explain about possible constraints, that can be enforced for a table.	K4	CO2
18	Illustrate exceptions with example. Also explain its types.	K6	CO3
19	Describe about types of NoSQL Databases.	K5	CO4
20	Elaborate CRUD Operations of mongodb with example.	K4	CO5

Z-Z-Z END