

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
MCA DEGREE EXAMINATION MAY 2025
(First Semester)

Branch – **COMPUTER APPLICATIONS**

HYBRID DATABASE MANAGEMENT SYSTEM

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	A collection of interrelated records is called a _____. a) Database b) Spreadsheet c) Management information system d) Text file	K1	CO1
	2	ROLLBACK in a database is _____ statement. a) DDL b) DML c) DCL d) TCL	K1	CO1
2	3	Which of the following is the subset of SQL commands used to manipulate, including tables? a) Data Described Language b) Data Retrieval Language c) Data Manipulation Language d) Data Definition Language	K1	CO1
	4	The oldest DB model is _____. a) Network b) Physical c) Hierarchical d) Relational	K1	CO1
3	5	For designing a normal RDBMS which of the following normal form is considered adequate? a) 4NF b) 3NF c) 2NF d) 5NF	K4	CO2
	6	Which of the following establishes a top-to-bottom relationship among the items? a) Relational schema b) Network schema c) Hierarchical schema d) All of the mentioned	K1	CO1
4	7	_____ is a set of one or more attributes taken collectively to uniquely identify a record. a) Primary Key b) Foreign key c) Super key d) Candidate key	K1	CO1
	8	_____ command is used in SQL to issue multiple CREATE TABLE, CREATE VIEW and GRANT statements in a single transaction. a) CREATE CLUSTER b) CREATE PACKAGE c) CREATE SCHEMA d) All of the mentioned	K1	CO1
5	9	Which of the following is the best way to represent the attributes in a large db? a) Dot representation b) Concatenation c) Relational-and d) All of the mentioned	K1	CO1
	10	Which of the following is not an example of DBMS? a) MySQL b) Microsoft Access c) IBM DB2 d) Google	K3	CO3

Cont...

SECTION -B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 7 = 35)

Module No.	Question No.	Question	K level	CO
1	11.a.	Write about the Database users and administrators in a brief.	K3	CO3
	(OR)			
	11.b.	Explain the concept of Complex Attributes in short.		
2	12.a.	Illustrate the form of basic SQL query in details.	K4	CO2
	(OR)			
	12.b.	Sketch the complete picture of Boyce Codd Normal Form (BCNF) and explain briefly.	K3	CO3
3	13.a.	Distinguish between Structured and Unstructured data.	K4	CO2
	(OR)			
	13.b.	Summarize on the Key value pair Databases.	K5	CO4
4	14.a.	What do you understand the concept of MongoDB through the Ruby lens?	K5	CO4
	(OR)			
	14.b.	Explain the usage of Use cases and production deployments.	K3	CO3
5	15.a.	Critically discuss about Aggregation framework overview in detail.	K5	CO4
	(OR)			
	15.b.	Outline a short note on MongoDB updates and deletes in detail.	K4	CO2

SECTION -C(30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 x 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Explain the Database design using the E-R model in detail.	K4	CO2
2	17	Explain the significance of functions and Procedures.	K4	CO2
3	18	Explain the functioning of relational database in big data with examples.	K4	CO2
4	19	Do a research on MongoDB through the JavaScript shell in detail.	K6	CO5
5	20	Write about the MongoDB's query language. Explain with suitable example.	K3	CO3

Z-Z-Z

END