PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2025
(Third Semester)

Branch - MATHEMATICS WITH COMPUTER APPLICATIONS

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 is the method of specifying a primary key in a schema description? a) By writing it in bold letters b) By underlining it using a dashed line c) By writing it in capital letters d) By underlining it using a bold line	K1	CO1
	2	For each attribute of a relation, there is a set of permitted values, called the _____ of that attribute. a) Domain b) Relation c) Set d) Schema	K2	CO1
2	3	INSERT INTO employee ____ (1002,Joyee,2000); Which of the following keyword to be inserted into the ____? a) Table b) Values c) Relation d) Field	K1	CO2
	4	Select from the following operators used to compare two values in SQL. a) + b) = c) <> d) &	K2	CO2
3	5	What is the purpose of the SQL keyword "DISTINCT" in a SELECT statement? a) To retrieve unique values from a column b) To filter NULL values c) To delete duplicate records d) To sort the result set	K1	CO3
	6	Which SQL keyword is used to sort the data returned by a SELECT statement? a) Group b) Order c) Group By d) Order By	K2	CO3
4	7	Which type of data can be stored in the database? a) Image oriented data b) Text, files containing data c) Data in the form of audio or video d) All of the above	K1	CO4
	8	Interpret which of the following is not an example of DBMS? a) MySQL b) Microsoft Access c) IBM DB2 d) Google	K2	CO4
5	9	Which of the following gives a logical structure of the database graphically? a) Entity-relationship diagram b) Entity diagram c) Database diagram d) Architectural representation	K1	CO5
	10	The top level of the hierarchy consists of _____ each of which can contain _____. a) Schemas, Catalogs b) Schemas, Environment c) Environment, Schemas d) Catalogs, Schemas	K2	CO5

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.	Develop the concept of the Relational Databases.	K3	CO1
		(OR)		
	11.b.	Construct the architecture of the Database Structure.		
2	12.a.	Examine the basic structure of SQL queries.	K4	CO2
		(OR)		
	12.b.	Categorize the basic SQL operations.		
3	13.a.	Elaborate about the concept of SQL data definition.	K6	CO3
		(OR)		
	13.b.	Build different nested sub queries used in SQL for a STUDENT Database.		
4	14.a.	Discover a database with an Integrity Constraints.	K4	CO4
		(OR)		
	14.b.	Examine the JOIN expression used in SQL.		
5	15.a.	Simplify a Database by removing redundant attributes of an entity set.	K4	CO5
		(OR)		
	15.b.	Distinguish the strong and weak entity set from any one of the Database as per your interest.		

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	Build the structure of Database Schema in DBMS.	K3	CO1
2	17	Analyze about the overview of SQL query language.	K4	CO2
3	18	Design a Database with the concept of Aggregate Function.	K6	CO3
4	19	Inspect about accessing SQL from a programming language with example.	K4	CO4
5	20	Categorize the E-R diagram design issues and list the Extended E-R features.	K4	CO5